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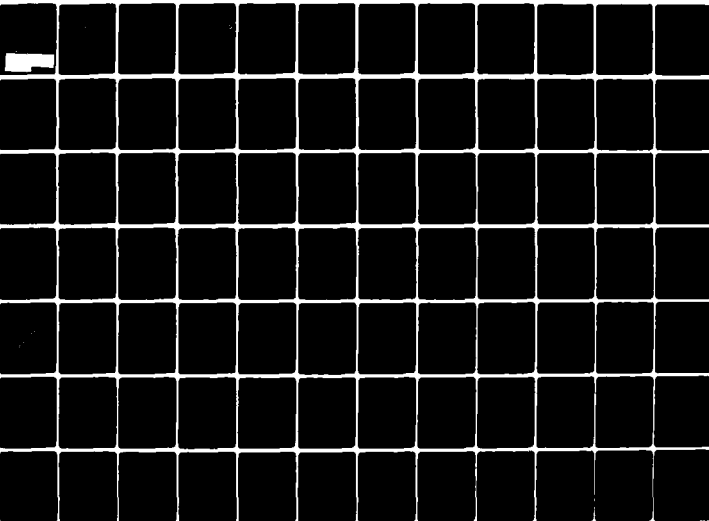
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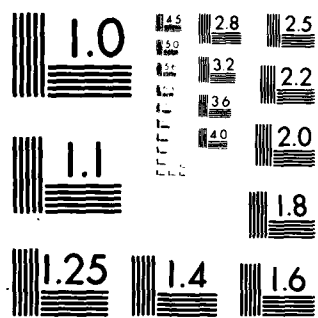
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**TECHNICAL REPORT  
TMDE MODERNIZATION PROGRAM**

**VOLUME I**

**June 1980**

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**U.S. ARMY COMMUNICATIONS AND ELECTRONICS  
MATERIEL READINESS COMMAND  
FORT MONMOUTH, NEW JERSEY 07703  
under Contract DAAB07-78-A-6606/BG02**

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ARINC Research Corporation conducted a review and analysis of various aspects of the TMDE Modernization Program (TMP) to determine the minimum number of separate makes and models that will replace existing general purpose TMDE in the Army. In addition, a Time-Phased Plan (TPP) for the introduction of TMDE acquired as a <u>refurb</u> of the TMP was developed, and the effects of not delivering modernized TMDE on schedule were identified.		

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TECHNICAL REPORT

TMDE MODERNIZATION PROGRAM

VOLUME I

June 1980

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Prepared for

U.S. Army Communications and Electronics  
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Fort Monmouth, New Jersey 07703  
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## FOREWORD

This technical report describes the work performed by ARINC Research Corporation during May and June 1980 for the U.S. Army Communications and Electronics Materiel Readiness Command (CERCOM), Fort Monmouth, New Jersey, under Contract DAAB07-78-A-6606/BG02. It presents the background, objectives, technical approach, and results of Subtasks 4A, 4B, and 4C. Other tasks assigned under the contract will be summarized in a separate report.

ARINC Research Corporation wishes to express its appreciation for the cooperation and assistance provided by Mr. Richard E. Pribyl of the Directorate of Maintenance Engineering, Special Equipment Support Division, CERCOM. We also wish to thank Mr. Eli J. Dworkin, Chief, Special Equipment Support Division, for his interest and guidance during the project.

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# ABSTRACT

ARINC Research Corporation conducted a review and analysis of various aspects of the TMDE Modernization Program (TMP) to determine the minimum number of separate makes and models that will replace existing general purpose TMDE in the Army. In addition, a Time-Phased Plan (TPP) for the introduction of TMDE acquired as a result of the TMP was developed, and the effects of not delivering modernized TMDE on schedule were identified.

## SUMMARY

ARINC Research Corporation was tasked by the U.S. Army Communications and Electronics Materiel Readiness Command (CERCOM) to review and analyze elements of the U.S. Army TMDE Modernization Program (TMP) pertaining to off-the-shelf (OTS) electronic test equipment (ETE) and to report the results.

The objectives of the review and analysis were to determine the minimum number of individual makes and models (M/M) of TMDE that would be required to replace the existing general purpose (GP) TMDE inventory, develop a Time-Phased Plan (TPP) for the TMP, and evaluate the impact of not completing the TMP on schedule. The information base for this project consisted of previous reports compiled by ARINC Research, Government documents (see Appendix A), and Letter Requirements (LRs) developed by the DARCOM/TRADOC Joint Working Group (JWG).

The principal conclusions reached as a result of this project are summarized as follows:

- The minimum number of M/M required to replace the U.S. Army GP TMDE inventory is 102. This number may rise slightly if each mainframe and plug-in combination required to satisfy a specific LR is nomenclatured separately.
- An estimated 1,948 individual M/M of GP TMDE, in 74 TMDE families, can be replaced by the 102 M/M.
- Several GP TMDE families and OTS ETE specifications that pertain to the required 102 M/M do not have corresponding LRs. These families should be reviewed and LRs prepared, if necessary. The OTS ETE specifications applicable to several of the LRs are out of date and should be reviewed, upgraded, and validated.
- The Nondevelopmental Item (NDI) acquisition process is applicable to the procurement of OTS ETE. This process was used to develop the TPP.
- The TPP provides the guidance necessary to implement the TMP and to determine initial resource requirements. The TPP is currently applicable to 76 LRs for fiscal years (FY) 1981 to 1985.

- Overall cost and replacement data for the 76 LRs were not available. Data were available for 26 LRs, and these data were used to extrapolate cost data. However, some of these data were inconclusive; therefore, cost data were extrapolated on the basis of 16 LRs for FY 1982.
- Funds available for the TMP/TPP are insufficient and will result in long-term delays in acquiring the modernized TMDE. Table S-1 depicts actual funds required, the TMP funding objective, programmed level (actual funds available for the TMP), and a no-funding situation for the TMP. A review of the data presented indicates that at the programmed level of funding, a full complement of modernized TMDE will not reach the Army in the field on schedule. Further, there is a shortfall of approximately \$290 million between funds required and funds programmed.

Table S-1. TMP FY 1982-1985 FUNDING DATA* (IN MILLIONS OF DOLLARS)			
Actual Funds Required	TMP Funding Objective	TMP Programmed Level	No Funding for TMP
Projected Funding Level			
358.04 (273.95)	128 (128)	68.31 (68.3)	0 (0)
20-Year Life Savings			
4343.07 (1914.16)	1550.05 (973.26)	826.42 (520.59)	0 (0)
20-Year Cost to Retain Inventory			
0 (0)	4476.97 (1617.96)	5617.29 (2396.35)	6961.55 (3291.56)
*Funding data (i.e., Actual Funding Level, 20-Year Life Savings, and 20-Year Cost to Retain Inventory are extrapolated to 71 LRs on the basis of currently available cost data on 16 of these LRs. The "No TMP Funding" column indicates an assumption that no funds are provided. Data in parentheses represent the median; data without parentheses represent the mean.			

- The absence of state-of-the-art TMDE to support mission requirements will adversely affect the materiel readiness of weapon systems requiring TMDE support and will burden the Army's logistics system with unnecessary costs to support obsolete TMDE.

On the basis of the foregoing conclusions, the following recommendations are offered:

- The LRs and OTS ETE specifications applicable to the 102 M/M should be prepared, reviewed, updated, and validated, as required. The updating of each specification should begin approximately 24 months before the fiscal-year/fiscal-quarter procurement is planned for the item.
- The TPP should be coordinated and implemented.
- Resources required to implement the TPP should be determined, and activities required to acquire these resources should be started.
- Major emphasis should be placed on acquiring the funding needed to fully implement the TMP/TPP.
- An LCC economic analysis should be completed for all of the LRs in the TMP.
- Benefits of the TMP should be reported to DARCOM, TRADOC, DA, and DoD through a series of briefings.



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## CHAPTER ONE

### INTRODUCTION

#### 1.1 BACKGROUND

During the past several years, the U.S. Army Communications and Electronics Materiel Readiness Command (CERCOM) has tasked ARINC Research Corporation, under several different contracts, to perform studies and analyses to assist in the development of the TMDE Modernization Program (TMP). This program is directed toward the acquisition of off-the-shelf (OTS) electronic test equipment (ETE) to satisfy the requirements for test, measurement, and diagnostic equipment (TMDE) in the U.S. Army.

Under Task 4 of Contract DAAB07-78-A-6606/BG02, ARINC Research Corporation is required to formulate conclusions and recommendations concerning the "Best Mix of TMDE" and the applicability of OTS ETE for the general support (GS) maintenance level on the basis of a review and analysis of the data collected in Task 3. However, during the contract effort it was concluded that the "Best Mix of TMDE" required by GS units must be determined in consonance with the CERCOM TMP in order to assure that current planning for OTS ETE is reflected in the "Best Mix of TMDE." It is also necessary to determine how the GS units, and the Army, will be affected if these OTS ETE do not enter the inventory as scheduled. Accordingly, the following tasks had to be accomplished before the contract work could be completed:

- Subtask 4A - Identify makes and models of current Army inventory TMDE that will be replaced in the TMP
- Subtask 4B - Establish a time-phased plan for introducing TMDE under the TMP
- Subtask 4C - Evaluate the impact of not delivering modernized TMDE on schedule

These tasks are classified as subtasks to Task 4, while the original Task 4 is reclassified as Subtask 4D. This technical report summarizes the results of Subtasks 4A, 4B, and 4C. Tasks 1, 2, 3, 4D, and 5 will be reported in a separate document.

## 1.2 PROJECT OBJECTIVES

The overall project objectives are to assist in the implementation of the TMP and to determine the "Best Mix of TMDE" at the GS maintenance level. Specific objectives of this report are as follows:

- To determine the minimum number of separate makes and models of general purpose (GP) TMDE required to support the operation and maintenance of U.S. Army systems currently fielded
- To develop a time-phased plan to describe the replacement of the current Army GP TMDE inventory
- To evaluate the impact on the Army of not fully implementing the TMP on schedule

## 1.3 OVERVIEW OF WORK PERFORMED

Before Subtasks 4A, 4B, and 4C were conducted, the U.S. Army GP TMDE inventory, as described in DA PAM 700-20/21, was reviewed and each item listed was placed in a TMDE family such as Signal Generator, VHF, or Voltmeter, AC. The measurement envelope of each family was documented, and the availability of OTS ETE to satisfy those measurement requirements was determined and OTS ETE specification(s) developed to represent each family. Finally, a TMDE Cross-Reference List (TCRL) was developed to identify the ARINC Research (OTS ETE) specifications that could be used to acquire OTS ETE that might replace a specific Army TMDE. In addition, an automated TMDE data base was developed to store, sort, and compare the TMDE performance characteristics. The documents describing these activities, performed under earlier contracts with CERCOM, are listed in Appendix A, Part I.

In Subtask 4A the data developed in these earlier contracts were supplemented with data on oscilloscopes and frequency counters (which were not included in the earlier studies) and the TCRL was updated accordingly. In addition, the Letter Requirements (LRs) developed by the DARCOM/TRADOC Joint Working Group (JWG) were encoded and placed in the data base and compared with the specifications developed by ARINC Research. From these data sources, the minimum number of separate makes and models of GP TMDE required to support the operation and maintenance of U.S. Army electrical/electronic systems and to replace or supplement the existing U.S. Army TMDE inventory was determined.

In Subtask 4B documents related to integrated logistic support (ILS) and acquisition of nondevelopmental items (NDIs) were reviewed and a TMDE NDI acquisition strategy was developed. In addition, a "Time-Phased Plan" for the introduction of TMDE documented by the LRs as part of the TMP was prepared.

Subtask 4C consisted of evaluating how the Army would be affected if the TMP were not fully funded and modernized TMDE were not delivered on schedule. This evaluation was accomplished through a series of scenarios that depicted the impact, at various levels of funding, on overall program cost, cost saving, logistics, and materiel readiness.

#### 1.4 REPORT ORGANIZATION

Chapter One has presented the project background and objectives. Chapter Two describes the study approach, Chapter Three the results, and Chapter Four the conclusions and recommendations. Six appendixes document data used in the conduct of the project:

Appendix A - Bibliography of Source Documents

Appendix B - Description of the TMDE Cross-Reference List (TCRL)

Appendix C - TCRL (Parts I and II)

Appendix D - LR Technical Data

Appendix E - LR/Specification Analysis

Appendix F - Life-Cycle-Cost Model

## CHAPTER TWO

### TECHNICAL APPROACH

#### 2.1 ESTABLISH PROJECT BASELINE

As background to the discussion of the technical approach used in Subtasks 4A, 4B, and 4C, Sections 2.1.1 through 2.1.3 summarize earlier activities accomplished by ARINC Research Corporation in support of the TMP. These activities were used to establish the baseline for accomplishing the three subtasks.

##### 2.1.1 U.S. Army TMDE Inventory

The U.S. Army TMDE inventory consists of approximately 5,000 separate makes and models (M/M). Approximately 4,000 of these M/M are listed in the DA TMDE Register (DA PAM 700-20/21). Approximately 1,000 M/M within the Army remain to be included in the register; most of these are non-standard items and of very low density, i.e., fewer than 10. Within the 5,000 M/M there are several distinct categories of TMDE:

- GP TMDE
- Special Purpose (SP) TMDE
- Automatic Test Equipment (ATE)
- Calibration Standards
- Weights/Measures
- Hydraulic/Mechanical
- COMSEC
- Laboratory/Industrial

While the TMP is directed toward replacement of GP TMDE, it has some application to SP TMDE. It is estimated that there are approximately 1,800 to 2,200 separate M/M of GP TMDE and between 500 and 700 separate M/M of SP TMDE in the Army TMDE inventory.

### 2.1.2 Summary of GP TMDE Activities and Accomplishments

From August 1974 to May 1975, ARINC Research Corporation conducted an economic analysis of selected TMDE from the U.S. Army Communications Command (USACC) TMDE Preferred Items List (PIL). The results of this study validated the PIL concept, i.e., the reduction of proliferation of TMDE by using OTS ETE, and developed a life-cycle-cost (LCC) model for determining the total LCC of selected TMDE. The data derived from this study were used by CERCOM in the successful development and processing of three Class Determinations and Findings (Class D & F) for TMDE and in the further development of an LCC model that determined the economics of replacing field items with a preferred item. That model was used in Contract DAAB07-78-A-6606/BG06, and the LCC results were used to provide cost data for Subtask 4C (see Appendix F).

In May 1976 CERCOM requested ARINC Research to develop OTS ETE specifications for GP TMDE. This effort began with a detailed review and analysis of the Army TMDE inventory as described in the DA TMDE Register (DA PAM 700-20/21), SB 700-20, and various PILs that were available at that time for review. The technical characteristics and application of each listed TMDE were reviewed, analyzed, and categorized, and the item was assigned to a TMDE family (e.g., Signal Generator, HF) that reflected its salient characteristics. Initially, there were 79 separate GP TMDE families. The identifying and technical data of each TMDE were encoded and stored in the computerized TMDE data base. Other categories of TMDE, e.g., SP TMDE, Calibration Standards, and ATE, were excluded from this study; however, identification data for the excluded items were encoded and stored in the data base. From this data base, various reports were derived that facilitated the development of the OTS ETE specifications.

On the basis of the technical characteristics of each GP TMDE family, a test/measurement envelope or composite for that family was developed. These data served as a starting point for determining whether there were available OTS ETE that would meet or exceed the test/measurement capabilities of Army TMDE. The objective was to identify state-of-the-art OTS ETE TMDE that had the required technical features to replace Army TMDE within a TMDE family, be acquired competitively, and provide data for development of the OTS ETE specifications. This process resulted in the combining of several TMDE families under one OTS ETE specification and in the preparation of a number of OTS ETE specifications to cover one family. Thus the OTS ETE specifications were developed from Army TMDE inventory data and were expanded to include state-of-the-art capabilities available in OTS ETE that could be acquired competitively. The specifications were formatted in accordance with MIL-T-28800, encoded, and included in the ARINC Research TMDE data base. As a result, a total of 98 OTS ETE specifications representing 69 GP TMDE families were developed. With the exception of oscilloscopes and frequency counters, which were specifically excluded by CERCOM, the 69 TMDE families represent all categories of GP TMDE found in the Army TMDE inventory.

The technical data in the TMDE data base for the specifications and for the Army GP TMDE were used to develop the TCRL. That document indicates which specifications can be used to acquire OTS ETE that has the potential for replacing a specific Army TMDE. Thus the TCRL is a starting point for determining which TMDE can be functionally or partially replaced by the acquisition of a new TMDE that conforms to the OTS ETE specifications shown in the TCRL. Appendix B provides a more detailed description of the TCRL.

The activities described above were completed in July 1977. Subsequently, 9 specifications and 7 TMDE families were reviewed, upgraded, and documented in ARINC Research Publication 1076-01-3-1770, dated July 1978, and 18 specifications and 18 TMDE families were reviewed, upgraded, and documented in ARINC Research Publication 1574-01-1-2076, dated December 1979. As a result, 7 specifications and 5 TMDE families were eliminated or combined with other specifications.

The foregoing activities produced the data shown in Table 2-1. This table displays the number of individual GP TMDE families (in TMDE family code sequence), the number of individual family members (i.e., separate makes and models), and the families that were combined with another family (see "Remarks" column). Table 2-1 also depicts the specifications representing each family, by specification number, date prepared, and specific name. Finally, the LR Numbers\* assigned to those LRs prepared by the DARCOM/TRADOC JWG and containing characteristics comparable to OTS ETE specifications are shown, together with the fiscal year in which the Army intends to replace the item. ARINC Research originally concluded that the Army had 79 distinct GP TMDE families, excluding oscilloscopes and frequency counters. However, in the time since that conclusion was made, the number of active TMDE families has been reduced to 64 GP TMDE families as a result of advances in TMDE technology. The individual members of these 64 families have the potential for replacement by newly acquired TMDE that reflect the technical characteristics of the 91 OTS ETE specifications listed. Potentially, 1,606 separate makes and models in the Army inventory can be replaced by these specifications as defined in the TCRL.

### 2.1.3 Summary of SP TMDE Activities and Accomplishments

In June 1979 ARINC Research was tasked by CERCOM to determine the feasibility of replacing SP TMDE with OTS ETE. Again, the DA TMDE Register was the primary data source; and the automated processes, procedures, and data base established during the GP activities described in Section 2.1.2 were used to review and analyze SP TMDE.

Initially, 593 SP TMDE, as listed in the register, were identified and their respective identification and technical data were encoded and included in the TMDE data base for further processing. As a result of this process, 51 SP TMDE families and their individual members were identified and grouped. This concluded the first part of the study.

---

\*The LR Number assigned by ARINC Research is a duplicate of the "Performance Characteristic Number" assigned by DARCOM/TRADOC JWG to each LR.



Table 2-1. TWDE FAMILIES AND OTS ETE SPECIFICATIONS								
TWDE Family Code	TWDE Family Name	Number of M/M in TWDE Family	OTS ETE Specification Number	Date Specification Prepared	Specification Name	Remarks	LR Number	FY Buy Year
001	Ammeter, AC	17	--			Combined with TWDE Family 002/ Specification 23		
002	Ammeter, Clamp-On	6	23	12/79	Ammeter, AC, Clamp-On			
003	Ammeter, DC	10	--	--		Combined with TWDE Family 032/ Specification 29		
004	Audio Intensity Meter	5	87	7/77	Audio Intensity Meter			
005	Audio Level Meter	11	--	--		Combined with TWDE Family 071/ Specification 81		
006	Audio Oscillator	64	1	1/77	Audio Oscillator		33	1982
008	Bridge	38	25	7/78	Bridge, Universal		66	1984
009	Cable Test Set	14	88	12/79	Cable Test Set, Time Domain Reflectometer		01	1983
010	Calorimeter	4	42	5/77	Calorimeter		02	1985
011	Capacitor Test Set	9	--	--		Combined with TWDE Family 008/ Specification 25		
013	Data Error Rate Test Set	7	72	6/77	Data Error Test Set		07	1984
014	Distortion Analyzer	16	74	6/77	Distortion Analyzer		79	1984
016	Envelope Delay Test Set	5	75	6/77	Envelope Delay Test Set		06	1985
020	Frequency Meter	49	47	5/77	Frequency Meter A		11	1983
			48	5/77	Frequency Meter B			
			49	5/77	Frequency Meter C			
			50	5/77	Frequency Meter D			
			51	5/77	Frequency Meter E			
			52	5/77	Frequency Meter F			
			53	5/77	Frequency Meter G			
			54	5/77	Frequency Meter H			
			55	5/77	Frequency Meter I			
021	Gauss Meter	4	89	7/77	Gauss Meter			
022	Impedance Meter	3				Combined with TWDE Family 008/ Specification 25		
023	Impulse Noise Counter	1	76	6/77	Impulse Noise Counter		12	1984
025	Insulation Test Set	24	26	3/77	Insulation Test Set		13	1983

(continued)

Table 2-1. (continued)

TWDE Family Code	TWDE Family Name	Number of M/W in TWDE Family	OTS ETE Specification Number	Date Specification Prepared	Specification Name	Remarks	LR Number	FY Buy Year
027	Logic Analyzer	11	77	6/77	Logic Analyzer	Combined with TWDE Family 055/ Specification 13	14	1983
029	Megohmmeter	2	27	6/77	Megohmmeter		15	1984
030	Microwave Link Analyzer	9	56	5/77	Microwave Link Analyzer		03	1983
031	Modulation Meter	11	57	5/77	Modulation Meter		17	1982
032	Multimeter	153	28	12/79	Multimeter, Digital, Handheld		18	1982
033	Noise Figure Meter	2	--	--	Multimeter, Digital		19	1985
034	Noise Power Ratio Test Set	4	58	5/77	Noise Power Ratio Test Set		20	1984
035	Ohmmeter	13	59	5/77	Noise Generator, Twelve Channel		21	1985
036	Oscillographic Recorder	18	30	3/77	Ohmmeter		22	1985
037	Phase Jitter Meter	4	31	3/77	Ohmmeter (Earth Tester)		23	1982
038	Phase Meter	4	91	7/77	Oscillographic Recorder (Two Channel)	Combined with TWDE Family 081/ Specification 19	31	1984
040	Power Meter, RF	21	92	7/77	Oscillographic Recorder (Eight Channel)		76	1983
041	Power Meter, SHF	17	78	6/77	Phase Jitter Meter		77	1984
042	Q-Meter	9	60	5/77	Phase Meter			
043	Field Strength Meter	17	61	12/79	Wattmeter, RF			
			63	12/79	Power Meter, SHF			
			93	7/77	Q-Meter			
			43	5/77	Field Strength Meter A			
			44	5/77	Field Strength Meter B			
			45	5/77	Field Strength Meter C			
045	Semi-Conductor Test Set	23	46	5/77	Field Strength Meter D	Combined with TWDE Family 081/ Specification 19	63	1982
047	Signal Generator, Function	37	94	7/77	Semi-Conductor Test Set		47	1982
049	Sweep Generator, SHF	43	--	--			51	1982
050	Signal Generator, Pulse	45	21	12/77	Sweep Generator, SHF		48	1982
051	Signal Generator, HF	26	04	7/78	Generator, Signal Pulse		34	1981
052	Sweep Generator, HF	12	03	1/77	Signal Generator, HF		49	1982
			20	1/77	Sweep Generator, HF			

(continued)

Table 2-1. (continued)							
TWDE Family Code	TWDE Family Name	Number of W/M in TWDE Family	OTS ETE Specification Number	Date Specification Prepared	Specification Name	Remarks	PY Buy Year
053	Signal Generator, SHF	35	05	1/77	Signal Generator, SHF A		39 1982
			06	1/77	Signal Generator, SHF B		40 1982
			07	1/77	Signal Generator, SHF C		41 1981
			08	1/77	Signal Generator, SHF D		42 1982
			09	1/77	Signal Generator, SHF E		44 1985
			10	1/77	Signal Generator, SHF F		45 1985
			11	1/77	Signal Generator, SHF G		46 1985
			12	1/77	Signal Generator, SHF H		43 1982
054	Signal Generator, Square Wave	10	--	--		Combined with TWDE Family 047/ Specification 2	
055	Signal Generator, Thermal Noise	17	13	1/77	Signal Generator, Thermal Noise A		52 1984
			14	1/77	Signal Generator, Thermal Noise B		21 1985
056	Signal Generator, Tracking	3	64	1/77	Signal Generator, Tracking	Used with TWDE Family 110/ Specification 70	
059	Spectrum Analyzer, Audio	11	65	12/79	Spectrum Analyzer, Low Frequency		56 1983
060	Spectrum Analyzer, Baseband	5	66	5/77	Spectrum Analyzer, Baseband	Used with TWDE Family 110/ Specification 70	54 1983
061	Spectrum Analyzer, RF	37	--	--		Combined with TWDE Family 062/ Specification 68	55 1983
062	Spectrum Analyzer, SHF	20	68	12/79	Spectrum Analyzer, RF		53 1983
063	Standing Wave Ratio (SWR) Meter	21	69	5/77	Standing Wave Ratio (SWR) Meter		57 1984
065	Stroboscope	10	95	7/78	Stroboscope		58 1985
066	Teletype Test Set Analyzer	29	33	3/77	Teletype Test Set Analyzer	Used with TWDE Family 067/ Specification 34	60 1984
067	Teletype Test Set Generator	11	34	3/77	Teletype Test Set Generator	Used with TWDE Family 066/ Specification 33	30 1983
			35	3/77	Teletype Test Set	Combination Teletype Analyzer and Generator	59 1983

(continued)

Table 2-1. (continued)							
TMDE Family Code	TMDE Family Name	Number of M/M in TMDE Family	OTS ETE Specification Number	Date Specification Prepared	Specification Name	Remarks	LR Number
068	Television Generator	11	79	6/77	Television Generator A		
070	Temperature Indicator	4	80	6/77	Television Generator B		61 1983
071	Transmission Test Set	32	96	7/77	Temperature Indicator		65 1983
072	Tube Tester	23	82	12/79	Transmission Test Set A		64 1984
073	Vector Impedance Meter	2	83	6/77	Transmission Test Set B		
074	Vector Voltmeter	6	84	3/77	Tube Tester		
075	Voice Band Analyzer	3	85	6/77	Vector Impedance Meter A		67 1985
076	Voltmeter, AC	58	86	6/77	Vector Impedance Meter B		74 1983
077	Voltmeter, DC	26	--	--	Vector Voltmeter		
078	Voltmeter, Digital	36	--	--	Voice Band Analyzer	Combined with TMDE Family 080/ Specification 41	68 1984
079	Voltmeter, RF	9	40	12/79		Combined with TMDE Family 032/ Specification 29	
080	Voltmeter, RMS	14	41	12/79	Voltmeter, RF	Combined with TMDE Family 032 Specification 29	70 1982
081	Sweep Generator, Audio	4	19	12/79	Voltmeter, AC True RMS	TMDE Family 047 and 081 were combined	72 1982
082	Power Meter, RF, In-Line	5	62	12/79	Generator, Signal, Function		73 1983
084	X-Y Recorder	6	98	7/77			
106	Signal Generator, VHF	65	17	3/78	Power Meter, RF, In-Line	Requirement Deleted by CERCOM 3/78	75 1983
107	Signal Generator, UHF	31	18	7/78	X-Y Recorder	Requirement Deleted by CERCOM 3/78	78 1983
108	Sweep Generator, VHF	8	15	3/78	Generator, Signal, VHF	Requirement Deleted by CERCOM 3/78	35 1982
109	Sweep Generator, UHF	15	22	1/77	Generator, Signal, UHF	Requirement Deleted by CERCOM 3/78	37 1982
						Combined with TMDE Family 109/ Specification 22	38 1982
							50 1982

(continued)

Table 2-1. (continued)							
TMDE Family Code	TMDE Family Name	Number of M/M in TMDE Family	OTS ETE Specification Number	Date Specification Prepared	Specification Name	Remarks	FY Buy Year LR Number
110	Voltmeter, Frequency Selective	14	70	5/77	Voltmeter, Frequency Selective	See "Remarks," TMDE Families 056 and 060	1984 71
111	Vibration Test Set	8	97	7/77	Vibration Test Set		
112	Audio System Test Set	5	71	6/77	Audio System Test Set		
116	Motor/Generator Test Set	14	--	--		Combined with TMDE Family 002/ Specification 23	
117	Tachometer, Electronic	16	32	3/77	Tachometer, Electronic		
118	Continuity Test Set	5	--	--		Combined with TMDE Family 032/ Specification 29	
119	Optical Test Set	2	90	7/77	Optical Test Set		
121	Voltmeter, Differential	14	38	7/78	Voltmeter, Differential		1983 69
122	Dial Equipment	12	73	6/77	Dial Equipment Test Set		1984 04

The second part of the study was a detailed review and analysis of 20 SP TMDE selected by CERCOM (all classified as Standard A in SB 700-20) and the specific end items they supported. The individual equipment technical manuals were used as the source documents for this activity. Whenever feasible, a separate combination of GP U.S. Army PIL TMDE and ARINC Research OTS ETE specifications were identified as potential replacements for each specifically required test or measurement.

ARINC Research reached the following conclusions from this study of the feasibility of replacing SP TMDE with OTS ETE or with groups of GP TMDE:

- It appears that many SP TMDE can be replaced by individual GP TMDE at the Direct Support (DS)/GS/Depot (D) maintenance levels. However, many of these SP TMDE should be retained at the organizational maintenance level for convenience and because of the small number of authorized GP TMDE at that level.
- SP TMDE that do not have functionally equivalent GP TMDE (e.g., special wiring harnesses, mechanical holding fixtures) must be retained in the inventory at required levels of maintenance.
- The use of groups of multipurpose GP TMDE in place of SP TMDE may result in a significant cost saving (or avoidance). Further study will be required to substantiate this conclusion.
- While there may be commercial items of OTS ETE that could functionally replace SP TMDE, these items are themselves SP TMDE. Replacing SP TMDE by these limited-function, noncompetitive items would require careful assessment in such areas as mean time between failures (MTBF), mean time to repair (MTTR), mean time to calibrate (MTTC), and initial cost.

From the results of the SP TMDE study, it is estimated that approximately 40 percent of the separate makes and models (M/M) of SP TMDE in the Army TMDE inventory can be replaced with GP OTS ETE or with current U.S. Army GP PIL TMDE at the DS/GS/D maintenance levels. This would yield a reduction of approximately 237 separate M/M. If this situation existed today, SP TMDE would be relegated primarily to organizational-level maintenance for convenience purposes, for quality assurance functions, and for truly unique equipments or equipment configurations. Further, it is estimated that the overall population of SP TMDE could be significantly reduced, leading to a reduction in logistic support costs and procurement costs.

## 2.2 SUBTASK 4A: IDENTIFY MAKES AND MODELS OF CURRENT ARMY INVENTORY TMDE THAT WILL BE REPLACED IN THE TMP

To accomplish Subtask 4A, the documents listed in Appendix A, Part I, and the draft LRs prepared by the DARCOM/TRADOC JWG were reviewed. ARINC Research assigned each LR a series of identification numbers consisting of the fiscal year in which it was planned to purchase the equipment, an LR number originally assigned by the JWG, and the equivalent ARINC Research

OTS ETE specification number, if applicable, e.g., 1984\*LR12\*76. The technical data in each LR were encoded and stored in the TMDE data base for subsequent comparisons with the LR's equivalent specification. In addition, the LRs for oscilloscopes and frequency counters were assigned specification numbers and processed for inclusion in the TMDE data base. The TCRL was updated to include oscilloscopes and frequency counters. These activities culminated in the determination of the minimum number of separate M/M of GP TMDE required to replace the existing GP TMDE inventory. The selected M/M can support the operations and maintenance of U.S. Army electronic systems currently fielded.

#### 2.3 SUBTASK 4B: ESTABLISH A TIME-PHASED PLAN FOR INTRODUCING TMDE UNDER THE TMP

The Time-Phased Plan (TPP) was developed on the basis of the priorities established by the DARCOM/TRADOC JWG for each draft LR, for a given fiscal year, and review and analysis of the documents listed in Appendix A, Parts II and III. Three of these documents -- APRO 803, DARCOM-C 20-3, and DARCOM Supplement 1 to AR 700-127 -- were the main sources of information used to develop the NDI acquisition events and milestones established in the TPP. Individual existing regulatory documents describing methods or procedures applicable to the TMP NDI acquisition process were associated with a specific event, as required. However, no attempt was made to include the details of these documents in the TPP.

By use of the available data, a TMP overview, depicting major events and milestones, sequenced in time and relationship, was developed. Individual event/milestone charts for each fiscal year were also developed. TMDE families within a fiscal year were divided into quarters, with events/milestones adjusted accordingly, to define as precisely as possible the progress of the acquisition cycle over each fiscal year.

The primary concern of the TMP is the support of the user's needs. Other areas of concern are the clarification of the role of participants, the compression of the acquisition cycle, and the assurance that the TMDE meets or exceeds test/measurement requirements, is supportable, and reflects the state of the art.

#### 2.4 SUBTASK 4C: EVALUATE THE IMPACT OF NOT DELIVERING MODERNIZED TMDE ON SCHEDULE

To accomplish Subtask 4C, the LCC and replacement data derived from the LCC Economic Analysis (EA) for selected LRs were reviewed and applicable information extracted. The EAs are currently being developed by both CERCOM and ARINC Research Corporation under Contract DAAB07-78-A-6606/BG06. From these data, the number of M/M to be replaced, the cost to retain the current inventory, the cost of the replaced item, and the potential cost savings for the life of the items were developed. Except for FY 1982, cost, replacement, and potential savings data were insufficient for an analysis.

Therefore, the data for FY 1982 were established as a baseline for projection purposes.

To develop the projection for FY 1983, 1984, and 1985, a ratio was established between the actual funds required to procure the replacement items and the funding objective and programmed level already identified. This ratio was then applied to total funds required, annual savings, 20-year life savings, and 20-year cost to retain the current inventory. On the basis of these cost categories, an average (mean) cost and a median cost per LR were developed and applied to each group of preferred items for FY 1982-1985; the extrapolations were then computed. The four categories of funding (actual funds required, CERCOM's funding objective, CERCOM's present programmed level, and a no-funding situation) form the basis for the four scenarios discussed in Chapter Three.



## CHAPTER THREE

### PROJECT RESULTS

#### 3.1 RESULTS OF SUBTASK 4A: IDENTIFY MAKES AND MODELS OF CURRENT ARMY INVENTORY TMDE THAT WILL BE REPLACED IN THE TMP

##### 3.1.1 LR Data Development

A list of 76 LRs and 73 draft LR documents was provided to ARINC Research by CERCOM. The LRs establish the requirements for the TMP. Draft LRs were not available for Signal Generators B(LR34), M(LR45), and N(LR46). The 76 LRs are listed in Table 3-1 in LR number sequence. The following data are also listed:

- Generic nomenclature (source: DARCOM/TRADOC JWG)
- ARINC Research-assigned LR number (source: DARCOM/TRADOC JWG/ARINC Research)
- FY buy year (source: DARCOM/TRADOC JWG)
- Draft LR name and date prepared (source: DARCOM/TRADOC JWG)
- Number of M/M replaced according to LR (source: DARCOM/TRADOC JWG)
- TMDE family code, OTS ETE specification number, and date prepared (source: ARINC Research)
- Number of TCRL replacements (source: ARINC Research)
- Remarks (source: ARINC Research)

Each LR was reviewed, and its identification and technical characteristics were encoded and included in the TMDE data base. These data are presented in Appendix D. The LRs for the signal oscilloscopes (LRs 24-29) and three frequency counters (LRs 08-10) were also assigned ARINC Research specification numbers (S1 to S9, respectively) and were encoded and included in the TMDE data base. The purpose was to include replacement data for the oscilloscopes and counters in the TCRL. During the review, ARINC Research concluded that five of the LRs may not be required: LRs 19, 37, 55, 68, and 70 (see Remarks column, Table 3-1). Table 3-2 summarizes the results of the review, i.e., identifies the number of LRs with OTS ETE specifications, LRs that are not required, and LRs for which no OTS ETE specifications were developed by ARINC Research.

Generic Nomenclature	LR Number	FY Buy Year	Draft LR Name	Date Draft LR Prepared	Number of N/M Replaced by LR	TYPE Family Code	OTS ETE Specification Number	Date Specification Prepared	Number of TCM Replacements		Remarks
									Functional	Partial	
Cable Test Set	01	1983	Cable Test Set	5/80	7	009	08	12/79	13	5	
Calorimeter	02	1985	Calorimeter	5/80	4		42	5/77	4	1	
Deviation/Modulation Meter	03	1983	Modulation Meter	5/80	8	031	57	5/77	9	4	
Dial Equipment Test Set	04	1984	Dial Equipment Test Set	5/80	4	122	73	6/77	6	11	
Envelope Delay Test Set	06	1985	Envelope Delay Test Set	5/80	4	016	75	6/77	4	0	
Error Rate Counter	07	1984	Error Rate Counter	5/80	6	013	72	6/77	8	0	
Frequency Counter A	08	1981	Universal Counter	7/79	8	018	57	N/A	84	0	
Frequency Counter B	09	1981	Microwave Counter	7/79	5	019	58	N/A	7	6	
10 Hz - 18 GHz											
Frequency Counter C	10	1981	Microwave Counter RF Pulse	7/79	0	125	59	N/A	0	0	
300 kHz - 18 GHz w/RF Pulse											
Frequency Meter	11	1983	Frequency Meter	5/80	1	020	47	5/77	5	4	
Impulse Noise Test Set	12	1984	Impulse Noise Test Set	5/80	1	023	76	6/77	2	0	
Insulation Test Set	13	1983	Insulation Test Set	5/80	13	025	26	3/77	17	21	
Mycometer	14	1983	Mycometer	5/80	3	029	27	6/77	6	16	
Microwave Link Analyzer	15	1984	Microwave Link Analyzer	5/80	5	030	56	5/77	7	6	
Multimeter (Analog)	16	1982	Electronic Analog Multimeter	12/79	6	032	N/A	N/A	0	0	Special requirement
Multimeter A (3 1/2 Digits)	17	1982	Digital Multimeter 3 1/2 Digits	12/79	19	032	28	12/79	57	80	
Multimeter B (4 1/2 Digits)	18	1982	Digital Multimeter 4 1/2 Digits	11/79	9	032	29	12/79	127	91	
Noise Indicator	19	1985	Noise Indicator	5/80	5	--	--	--	--	--	LR not required (see Table 2-1, Family Code 033)
Noise Loading Test Set A	20	1984	Noise Loading Test Set A	5/80	3	034	56	5/77	3	1	
12 kHz - 12.4 MHz											
Noise Loading Test Set B	21	1985	Noise Loading Test Set B	5/80	1	034	59	5/77	2	0	
300 Hz - 3.4 kHz											
Null Balance Earth Tester	22	1985	Null Balance Earth Tester	5/80	2	035	31	3/77	3	5	
Oscillographic Recorder (2 Channels)	23	1982	Oscillographic Recorder	11/79	12	036	91	7/77	11	9	
Oscilloscope A	24	1982	Oscilloscope DC-15 MHz	12/79	63	089	51	N/A	122	0	
Oscilloscope B	25	1982	Oscilloscope DC-100 MHz	12/79	43	091	52	N/A	80	0	
Oscilloscope C	26	1982	Oscilloscope Storage DC-100 MHz	12/79	7	094	53	N/A	8	0	
Oscilloscope D	27	1982	Oscilloscope DC-200 MHz	11/79	6	090	54	N/A	12	0	
Oscilloscope E	28	1982	Oscilloscope DC-400 MHz	12/79	5	080	55	N/A	10	0	
Oscilloscope F	29	1982	Oscilloscope DC-500 MHz	12/79	5	085	56	N/A	19	0	
Pattern Generator	30	1983	Pattern Generator	5/80	7	067	34	3/77	6	16	

(continued)

Generic Nomenclature	LR Number	FY Buy Year	Unit LR Name	Date Draft LR Prepared	Number of M/M Replaced by LR	TWBZ Family Code	OTS ETE Specification Number	Date Specification Prepared	Number of TRL Replacements		Remarks
									Functional	Partial	
Phase Jitter Meter Resistor Decade	31	1984	Phase Jitter Meter Decade Resistor	5/80	4	037	78	6/77	4	0	
Signal Generator A (Audio)	32	1983	Signal Generator, Low Frequency, Audio Oscillator	5/80	1	201	N/A	N/A	0	0	Unique LR, i.e., calibration standard
Signal Generator B 50 kHz - 80 MHz	33	1982	--	10/79	42	006	01	1/77	59	39	
Signal Generator C 450 kHz - 512 MHz	34	1981	--	--	--	051	03	1/77	6	39	LR not available
Signal Generator E 500 MHz - 1.2 GHz	35	1982	Signal Generator, VHF	10/79	24	106	18	7/78	51	28	
Signal Generator F 800 MHz - 2.4 GHz	37	1982	Signal Generator, UHF	10/79	1	107	15	3/78	0	0	Deleted by CERCOM 12/78
Signal Generator G 1.8 - 4.0 GHz	38	1982	Signal Generator, UHF	10/79	8	107	16	7/78	13	8	
Signal Generator H 3.8 - 7.0 GHz	39	1982	Signal Generator, SHF	10/79	3	053	05	1/77	5	7	
Signal Generator I 7.0 - 11.0 GHz	40	1982	Signal Generator, SHF	10/79	6	053	06	1/77	6	5	
Signal Generator J 10.0 - 15.0 GHz	41	1981	Signal Generator, SHF	UNK	4	053	07	1/77	3	4	
Signal Generator K 2.0 - 18.0 GHz	42	1982	Signal Generator, SHF	11/79	1	053	08	1/77	1	2	
Signal Generator L 15.0 - 21.0 GHz	43	1982	Signal Generator, SHF	11/79	5	053	12	1/77	6	11	
Signal Generator M 18 - 26.5 GHz	44	1985	Signal Generator, SHF	5/80	2	053	09	1/77	2	4	
Signal Generator N 26.5 - 40 GHz	45	1985	--	--	--	053	10	1/77	0	0	LR not available
Signal Generator (Function)	46	1985	--	--	--	053	11	1/77	2	1	LR not available
Signal Generator (Pulse)	47	1982	Signal Generator, Function	11/79	15	081	19	12/79	--	--	See Table 2-1, Family Code 047
Signal Generator Sweep A 1.0 kHz - 110 MHz	48	1982	Signal Generator, Pulse	11/79	16	050	04	7/78	34	28	
Signal Generator Sweep B 10 MHz - 1.0 GHz	49	1982	Signal Generator, Sweep	11/79	6	052	20	1/77	11	16	
Signal Generator Sweep C 1.0 - 40.0 GHz	50	1982	Signal Generator, Sweep	11/79	6	109	22	1/77	10	27	
Signal Generator Thermal Noise 10 MHz - 40.0 MHz	51	1982	Signal Generator, Sweep	11/79	11	049	21	1/77	39	27	
Signal Generator Thermal Noise 10 MHz - 40.0 MHz	52	1984	Signal Generator, Thermal Noise	5/80	3	055	13	1/77	15	6	
Spectrum Analyzer A 10 MHz - 40.0 MHz	53	1983	Spectrum Analyzer	5/80	14	062	68	12/79	44	12	
Spectrum Analyzer B 8 MHz - 1.1 MHz	54	1983	Spectrum Analyzer	5/80	5	060	66	5/77	5	10	

(continued)

Table J-1. (continued)											
Generic Nomenclature	LR Number	FY Buy Year	Draft LR Name	Date Draft LR Prepared	Number of M/M Replaced by LR	TRNG Family Code	OTS ETE Specification Number	Date Specification Prepared	Number of TCU Replacements		Remarks
									Functional	Partial	
Spectrum Analyzer C 100 MHz - 1.5 GHz	55	1983	Spectrum Analyzer	5/80	7	--	--	--	--	--	LR not required (see Table 2-1, Family Code 061)
Spectrum Analyzer D 15 Hz - 50 MHz	56	1983	Spectrum Analyzer	5/80	4	059	65	12/79	10	9	
Standing Wave Ratio Meter	57	1984	Standing Wave Ratio Meter (SWR)	5/80	16	063	69	5/77	21	5	
Stroboscope	58	1985	Stroboscope	5/80	3	065	95	7/78	4	7	
Teletype Test Set	59	1983	Teletype Test Set	5/80	15	067	35	3/77	19	3	
Teletype Test Set, Analyzer	60	1984	Teletype Analyzer	5/80	15	066	33	3/77	19	14	
Temperature Indicator	61	1983	Temperature Indicator	5/80	2	070	96	7/77	0	5	
Test Set, Semiconductor	62	1982	Test Set, Semiconductor	11/79	15	045	94	7/77	24	4	
Transmission Test Set	64	1984	Transmission Test Set	5/80	4	071	82	6/77	0	0	
Transmission Test Set (Telephone)	65	1983	Transmission Test Set (Telephone)	5/80	29	071	81	12/79	40	52	
Universal Bridge	66	1984	Universal Bridge	5/80	15	008	25	7/78	40	17	
Vector Impedance Meter	67	1985	Vector Impedance Meter	5/80	1	073	84	6/77	1	1	
AC Voltmeter	68	1984	AC Voltmeter	5/80	13	--	--	--	--	--	LR not required (see Table 2-1, Family Code 076)
Voltmeter, Differential	69	1983	Differential Voltmeter	5/80	3	121	38	7/78	12	7	
Digital Voltmeter	70	1982	Digital Voltmeter	11/79	7	--	--	--	--	--	LR not required (see Table 2-1, Family Code 078)
Voltmeter, Frequency Selective	71	1984	Frequency Selective Voltmeter	5/80	3	110	70	5/77	4	10	
Voltmeter, Multifunction	72	1982	Multifunction RF Voltmeter	11/79	5	079	40	12/79	12	13	
Voltmeter, True RMS & DB	73	1983	True RMS Voltmeter and DB Meter	5/80	5	080	41	12/79	49	34	
Voltmeter, Vector	74	1983	Vector Voltmeter	5/80	5	074	85	6/77	5	1	
Wattmeter A 2 MHz - 2.3 GHz	75	1983	Wattmeter (10 MW)	5/80	5	082	62	12/79	6	4	
Wattmeter B 30 MHz - 500 MHz	76	1983	Wattmeter (500 W)	5/80	12	040	61	12/79	16	7	
Wattmeter C 1 MHz - 10 GHz	77	1984	Wattmeter (10 MW)	5/80	5	041	63	12/79	15	11	
X-Y Recorder	78	1983	X-Y Recorder	5/80	6	084	98	7/77	5	1	
Distortion Analyzer	79	1984	Distortion Analyzer	5/80	12	014	74	6/77	14	14	

Table 3-2. SUMMARY OF LR/SPECIFICATIONS AND TMDE FAMILIES				
LR/Specification Status	Number of LRs	Number of TMDE Families Represented	Remarks	
LRS with Specifications	60	45	31 OTS ETE Specifications do not have LRS	
LRS for Which Specifications are Required				
• Oscilloscopes A Through F	6	6	LRS 24 Through 29	
• Frequency Counters A Through C	3	3	LRS 08 Through 10	
• Multimeter (Analog)	1	0	P/O TMDE Family 032 LR 16	
• Resistor, Decade	1	1	LR 32	
Total	71	55		
LRS Not Required	5		See Table 3-1 LRS 19, 37, 55, 68, and 70	
Total Number of LRS Processed	76			

### 3.1.2 LRs and OTS ETE Specifications

The technical characteristics of each LR and its corresponding OTS ETE specification were compared in order to determine the compatibility between documents (see Appendix E). Review of the technical characteristics indicates that some of the LR/specification combinations are incompatible. Further analysis is required to verify the status of those combinations. Since the OTS ETE specifications were developed on the basis of the availability of commercial products, those specifications with compatible LRs can be satisfied with an OTS ETE instrument. When there are disparities between the LR and the applicable specification, the availability of OTS ETE to satisfy the requirement must be determined. Further, when the date on which the specification was prepared will be more than one year earlier than the intended "FY Buy Year," the specification should be reviewed, upgraded, and validated to ensure that the item it describes is compatible with the total known or anticipated military requirements, reflects the state of the art, and can be acquired competitively. To ensure competition in the acquisition of OTS products, the technical requirements of individual LRs and specifications may have to be relaxed.

### 3.1.3 TMDE Cross-Reference List (TCRL)

The TCRL was updated to include frequency counters and oscilloscopes; and it now includes replacement data, by specification number and individual M/M, for all of the GP TMDE listed in the DA TMDE Register. Table 3-3 lists the data resulting from this effort, i.e., the number of separate M/M replaced, as indicated by the LRs and the TCRL. The table indicates the total number of M/M replaced by the 60 LRs that have companion OTS ETE specifications. Comparable TCRL data are shown for those specifications, as indicated by the TCRL. The difference between these two totals should be resolved in order to determine the total application of the proposed replacement TMDE and the exact number of units required to "buy out" (replace) all applicable M/M. Table 3-3 also indicates the total number of GP TMDE M/M that can be replaced by the specifications listed in the TCRL. The actual M/M and applicable specifications are listed in Appendix C.

For those instruments which are partially compatible with two or more OTS ETE specifications, as listed in Appendix C, the LR that designates their replacements must be determined with care, to ensure that a required capability is not arbitrarily removed from the field. This requirement provides further justification for determining the total application of a fielded TMDE before scheduling its replacement.

### 3.1.4 Minimum Number of Makes and Models (M/M)

To determine the minimum number of M/M required to replace the Army's GP TMDE inventory, the data from Tables 2-1, 3-1, 3-2, and 3-3 were reviewed. Table 3-4, which summarizes these data, indicates that 102 M/M (representing 74 TMDE families) are required. The 102 M/M can replace 1,948 individual M/M of Army GP TMDE. If the five LRs listed as not required on Table 3-2 are included, the number of M/M will increase to 107. The number of individual M/M replaced will remain the same. If the 237 M/M of SP TMDE

that were estimated to be replaceable by GP TMDE are included (see Section 2.1.3), a total of 3,185 individual M/M have the potential for replacement by the 102 M/M.

Table 3-3. LR AND TCRL REPLACEMENT DATA		
M/M Replacement Category	Number Replaced	Remarks
M/M Replaced by LRs with OTS ETE Specifications	644	Source: 60 individual LRs
M/M Replaced by OTS ETE Specifications with LRs	927	Source: TCRL
M/M Replaced by OTS ETE Specifications for all GP TMDE Families	1,948	Source: TCRL

Table 3-4. NUMBER OF MAKES AND MODELS REQUIRED TO REPLACE THE ARMY'S GP TMDE INVENTORY			
Determined and Developed by	OTS ETE Specifications Army LRs	TMDE Families Represented	Remarks
ARINC Research	91	64	Source: Table 2-1
DARCOM/TRADOC JWG	6	6	Source: Table 3-1 (Oscilloscopes)
DARCOM/TRADOC JWG	3	3	Source: Table 3-1 (Counters)
DARCOM/TRADOC JWG	1	0	Source: Tables 3-1 and 3-2 (Multimeter, Analog)
DARCOM/TRADOC JWG	1	1	Source: Table 3-1 (Resistor, Decade)
Total	102	74	

### 3.1.5 Mainframes/Plug-Ins

The number of M/M may increase over the 102/107 M/M previously determined, depending on how the TMDE procured under certain LR's are nomenclatured. For example, to satisfy LR 50 (Signal Generator Sweep C, 1 GHz to 50 GHz) a mainframe and up to six plug-ins must be procured to cover the frequency requirements. This may result in 6 M/M instead of 1 as specified by the LR. Other instruments that operate in the super high frequency (SHF) bands may be affected in a similar manner. In addition, because of the wide variety of plug-ins found in the commercial marketplace for oscilloscopes, the 6 oscilloscopes could expand to as many as 100 separate M/M.

### 3.2 RESULTS OF SUBTASK 4B: ESTABLISH A TIME-PHASED PLAN FOR INTRODUCTION OF TMDE UNDER THE TMP

The requirements for TMDE for the U.S. Army in the TMP are being established by LR's, which are being developed by the DARCOM/TRADOC JWG. Currently, 74 LR's have been completed in "draft" and are in various stages of the final approval process. Table 3-5 lists the draft LR's and identifies the fiscal year (FY) in which procurement is planned. The Time-Phased Plan (TPP) assumes that the LR's will be approved and the equipments acquired in the FY specified. The TPP is based on the NDI acquisition strategies described in APRO 803 and DARCOM-C 20-3, modified as necessary to adapt the process to the realities of the acquisition of OTS ETE products. The TPP establishes the overall role of each participating command. Individual participating commands should supplement the TPP, where necessary, to describe internal policies or procedures needed to complete their particular portions of the plan. The specific results of this subtask are reported in Sections 3.2.1 through 3.2.4.

#### 3.2.1 TMP/NDI Policy

The objectives of the TMP are to improve the materiel readiness of existing and new Army electrical/electronic systems and to reduce the life-cycle cost of TMDE required to support those systems. These objectives will be accomplished by acquiring state-of-the-art OTS ETE to replace currently fielded TMDE. The individual responsibilities and functions of the major and subordinate commands participating in the TMP are summarized as follows:

- U.S. Army Materiel Development and Readiness Command (DARCOM). DARCOM is the materiel developer; it has one vote in all In-Process Review (IPR) actions for TMDE procured under the TMP.
- CERCOM -- Acts as DARCOM executive agent, provides necessary inputs into Required Operational Capability (ROC)/LR documents, and initiates Basis of Issue Plan (BOIP)/Qualitative and Quantitative Personnel Requirements Information (QQPRI) actions for all procurements made under the TMP.



Table 3-5. LR REQUIREMENTS BY FISCAL YEAR

Fiscal Year	LR Number	LR Name	Date LR Prepared
1981	08	Frequency Counter A 0-500 MHz	7/79
1981	09	Frequency Counter B 10 Hz - 18 GHz	7/79
1981	10	Frequency Counter C 300 kHz - 18 GHz w/RF Pulse	7/79
1981	34	Signal Generator B 50 kHz - 80 MHz	--
1981	41	Signal Generator I 7.0 - 11.0 GHz	--
1982	16	Electronic Analog Multimeter	12/79
1982	17	Digital Multimeter 3 1/2 Digits	12/79
1982	18	Digital Multimeter 4 1/2 Digits	11/79
1982	70	Digital Voltmeter	11/79
1982	72	Multifunction RF Voltmeter	11/79
1982	23	Oscillographic Recorder	11/79
1982	24	Oscilloscope DC-15 MHz	12/79
1982	25	Oscilloscope DC-100 MHz	12/79
1982	26	Oscilloscope, Storage DC-100 MHz	12/79
1982	27	Oscilloscope DC-200 MHz	11/79
1982	28	Oscilloscope DC-400 MHz	12/79
1982	29	Oscilloscope DC-500 MHz	12/79
1982	47	Signal Generator, Function	11/79
1982	33	Signal Generator, Low Frequency, Audio Oscillator	10/79
1982	48	Signal Generator, Pulse	11/79
1982	39	Signal Generator, SHF 1.8 to 4.0 GHz	10/79
1982	40	Signal Generator, SHF 3.8 to 7.0 GHz	10/79
1982	42	Signal Generator, SHF 10.0 to 15.5 GHz	11/79
1982	43	Signal Generator, SHF 2.0 to 18.0 GHz	11/79
1982	49	Signal Generator, Sweep 100 kHz - 110 MHz	11/79
1982	50	Signal Generator, Sweep 10 MHz - 1.0 GHz	11/79
1982	51	Signal Generator, Sweep 10 GHz - 40.0 GHz	11/79
1982	35	Signal Generator, VHF 450 kHz - 512 MHz	10/79
1982	37	Signal Generator, UHF 500 MHz - 1.2 GHz	10/79
1982	38	Signal Generator, UHF 800 MHz - 2.4 GHz	10/79
1982	63	Test Set, Semiconductor	11/79
1983	01	Cable Test Set	5/80
1983	32	Decade Resistor	5/80
1983	63	Differential Voltmeter	5/80
1983	11	Frequency Meter	5/80
1983	13	Insulation Test Set	5/80
1983	14	Megohmmeter	5/80

(continued)

Table 3-5. (continued)			
Fiscal Year	LR Number	LR Name	Date LR Prepared
1983	03	Modulation Meter	5/80
1983	30	Pattern Generator	5/80
1983	56	Spectrum Analyzer 15 Hz to 50 kHz	5/80
1983	54	Spectrum Analyzer 4 kHz to 9.1 MHz	5/80
1983	55	Spectrum Analyzer 100 kHz to 1.5 GHz	5/80
1983	53	Spectrum Analyzer 10.0 MHz to 40.0 GHz	5/80
1983	59	Teletype Test Set	5/90
1983	61	Temperature Indicator	5/80
1983	65	Transmission Test Set (Telephone)	5/80
1983	73	True RMS Voltmeter and DB Meter	5/80
1983	74	Vector Voltmeter	5/80
1983	76	Wattmeter (500 W) 30 MHz to 500 MHz	5/80
1983	75	Wattmeter (10 kW) 2 MHz to 2.3 GHz	5/80
1983	78	X-Y Recorder	5/80
1984	68	AC Voltmeter	5/80
1984	04	Dial Equipment Test Set	5/80
1984	79	Distortion Analyzer	5/80
1984	07	Error Rate Counter	5/80
1984	71	Frequency Selective Voltmeter	5/80
1984	12	Impulse Noise Test Set	5/80
1984	15	Microwave Link Analyzer	5/80
1984	20	Noise Loading Test Set A	5/80
1984	31	Phase Jitter Meter	5/80
1984	52	Signal Generator, Thermal Noise	5/80
1984	57	Standing Wave Ratio Meter (SWR)	5/80
1984	60	Teletype Analyzer	5/80
1984	64	Transmission Test Set	5/80
1984	66	Universal Bridge	5/80
1984	77	Wattmeter (10 MW) 1 MHz to 18 GHz	5/80
1985	02	Calorimeter	5/80
1985	06	Envelope Delay Test Set	5/80
1985	19	Noise Indicator	5/80
1985	21	Noise Loading Test Set B	5/80
1985	44	Signal Generator, SHF 15 GHz to 21 GHz	5/80
1985	58	Stroboscope	5/80
1985	67	Vector Impedance meter	5/80
1985	22	Null Balance Earth Tester	5/80
1985	45	Signal Generator, SHF 18 GHz to 26.5 GHz	N/A
1985	46	Signal Generator, SHF 26.5 GHz to 40 GHz	N/A

- U.S. Army Communications Research and Development Command (CORADCOM) -- Provides inputs on technical matters pertaining to TMDE, as required.
- U.S. Army Central TMDE Activity (CTA) -- Performs the functions described in AR 750-43 and provides an interface for new requirements by coordinating these requirements with both the combat and materiel developers.
- U.S. Army Training and Doctrine Command (TRADOC). TRADOC is the combat developer; it has one vote in all IPR actions for TMDE procured under the TMP.
- U.S. Army Logistics Center (LOGCEN) -- Acts as the TRADOC executive agent for all procurements made under the TMP.
- U.S. Army Signal Center and Fort Gordon (USASC&FG) -- Acts as the combat developer's proponent for all actions; i.e., prepares ROCs/LRs and BOIP, prepares user Independent Evaluation Plans (IEPs), performs user evaluations, and prepares user Independent Evaluation Reports (IERs), as all these pertain to the procurement of TMDE under the TMP.
- U.S. Army Logistics Evaluation Agency (LEA). LEA represents the logistician; it has one vote in all IPR actions for TMDE procured under the TMP.

DoD policy directs the acquisition of OTS products to meet requirements whenever mission and cost constraints permit. The NDI acquisition process provides a method for acquiring OTS ETE products. This process allows the acquisition of materiel to meet authorized requirements without expending RDT&E funds and with a compressed acquisition cycle; it differs significantly from the process used for development items. Several advantages of the NDI process are: reduced logistic support cost, acquisition of state-of-the-art equipment with known reliability/compatibility, improved materiel readiness, and standardization of similar equipment types. One disadvantage in procuring an NDI system is that the Government does not dictate equipment design (minor modifications excluded).

The initial phase of the NDI process is normally managed by an Army development command and transitioned to a readiness command when the decision to buy an NDI is made. By a Memorandum of Agreement between CERCOM and CORADCOM, the total management of GP TMDE has been delegated to CERCOM. Therefore, CERCOM will act as both the materiel developer and commodity readiness command for the acquisition of OTS ETE, using the NDI acquisition process to minimize the overall cost of the TMP. When the decision is made to buy an NDI system, it will be assumed that the voting members of the participating commands (DARCOM, TRADOC, and LEA) are committed to the purchase.

### 3.2.2 NDI Support and Testing

NDI support and testing policies and procedures are different from those used during the normal military materiel acquisition process. For example, in the area of logistics support, maximum use of available

contractor support is stressed, especially during the initial fielding of the equipment. This requires an evaluation of the contractor's capabilities and limitations and the establishment of an interface between the contractor's resources and the Army's logistic support system. The Army must also determine when it is most cost-effective to transition to full military support for each OTS ETE procured. In the area of testing, a market survey, backed by the military suitability evaluation, takes the place of development and operational tests. The acceptability of the product in the commercial marketplace, reinforced by discussions with users and review of user data, is established in this way rather than by developmental and operational testing performed on NDIs. Additional testing is limited to contract compliance tests, e.g., verification of technical parameters and a military user evaluation test.

### 3.2.3 Definitization of Requirements

Determination of whether the technical requirements of each specific LR can be satisfied by the acquisition of OTS ETE is the responsibility of CERCOM. To meet this responsibility, CERCOM will act as the interface between the Army and the ETE industry by establishing an open-door policy for all ETE representatives. CERCOM will encourage the ETE industry to continually advise the Army on new technologies, innovations, and product lines. Particular emphasis should be placed on combining functions of several TMDE families into one instrument, simplifying operating procedures, improving reliability and maintainability, and reducing calibration requirements. Establishing a continuous dialogue with the ETE industry will assist CERCOM in evaluating the ETE state of the art. Further, it will provide a forum for the Army and the industry to discuss integrated logistic support (ILS) requirements and methods for OTS ETE and to acquaint the manufacturers with TMP/NDI policies and procedures.

To determine the applicability of OTS ETE, CERCOM will make itself familiar with user requirements as defined by the existing Army TMDE inventory and by the TMDE needs of new systems being fielded. Other sources can be used to further define TMDE requirements and the impact of ETE innovations. These include Logistics Assistance Office (LAO) reports, field visits and surveys, TMDE calibration and repair data, backlog requirements, Tables of Organization and Equipment (TOEs), and Tables of Distribution and Allowance (TDAs).

Using available data as described above, as well as data from other DoD sources, CERCOM will develop OTS ETE specifications that meet or exceed known test/measurement requirements and are representative of TMDE families found in the Army. These specifications have several purposes:

- They will serve as a reference point for determining the feasibility of meeting ROC/LR requirements and replacing existing obsolete TMDE with OTS ETE.
- They will provide a document from which TRADOC can make an initial determination as to whether available OTS ETE is suitable to meet military requirements.

- They will provide the technical information source document required to make an NDI buy decision.

Because of the rapid technological changes being experienced in the electronics industry, the specifications will be reviewed and upgraded by CERCOM and reevaluated by the intended user at least every five years.

#### 3.2.4 Time-Phased Plan (TPP)

In the development of the TPP acquisition strategy, events, and milestones, the following assumptions were made:

- The 74 draft LRs will be approved and funded in the FY indicated in Table 3-5 (two additional LRs, i.e., Signal Generators M and N, will be developed and approved for FY 1985).
- OTS ETE are available that meet the technical requirements of the LRs.
- The overall military suitability of OTS ETE has been evaluated and determined to be adequate.
- The decision to buy OTS ETE using the NDI acquisition process has been coordinated and agreed to by the TMP decision-making body.

##### 3.2.4.1 NDI Acquisition Management Model for OTS ETE

The NDI Acquisition Management Model for OTS ETE (see Figure 3-1) depicts a recommended approach for the procurement of OTS ETE to satisfy the requirements of the TMP. The model was used to develop the TPP. Each event/milestone (E/M) of the model is discussed below (the E/M numbers are keyed to the E/M numbers on the figure). The time period for each event is shown as the maximum time allowed for completion. In most cases the time period can be compressed if adequate resources are available and properly managed. Where applicable, the reference documents are cited and the principal responsible command(s) noted. As the model is refined, several of the documents cited or portions thereof may be eliminated. *APRO 803 and DARCOM-C 20-3 should be used in conjunction with this discussion of the ETE NDI model.*

From the time of approval of the LR to the time the equipment is fielded, approximately 30 months is required. This time period can probably be further compressed once the rhythm of the TMP is established and some program experience is accumulated.

##### E/M-1: LR Prepared and Approved

In E/M-1, the LR is prepared and approved. The BOIP and provisional QQPRI documents are prepared and approved prior to final approval of the LR. Responsibility: combat and materiel developers.\* Reference: ARs 71-2, 71-5, 71-9, and 611-1.

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\*Combat and materiel developers are USASC&FG and CERCOM, respectively.

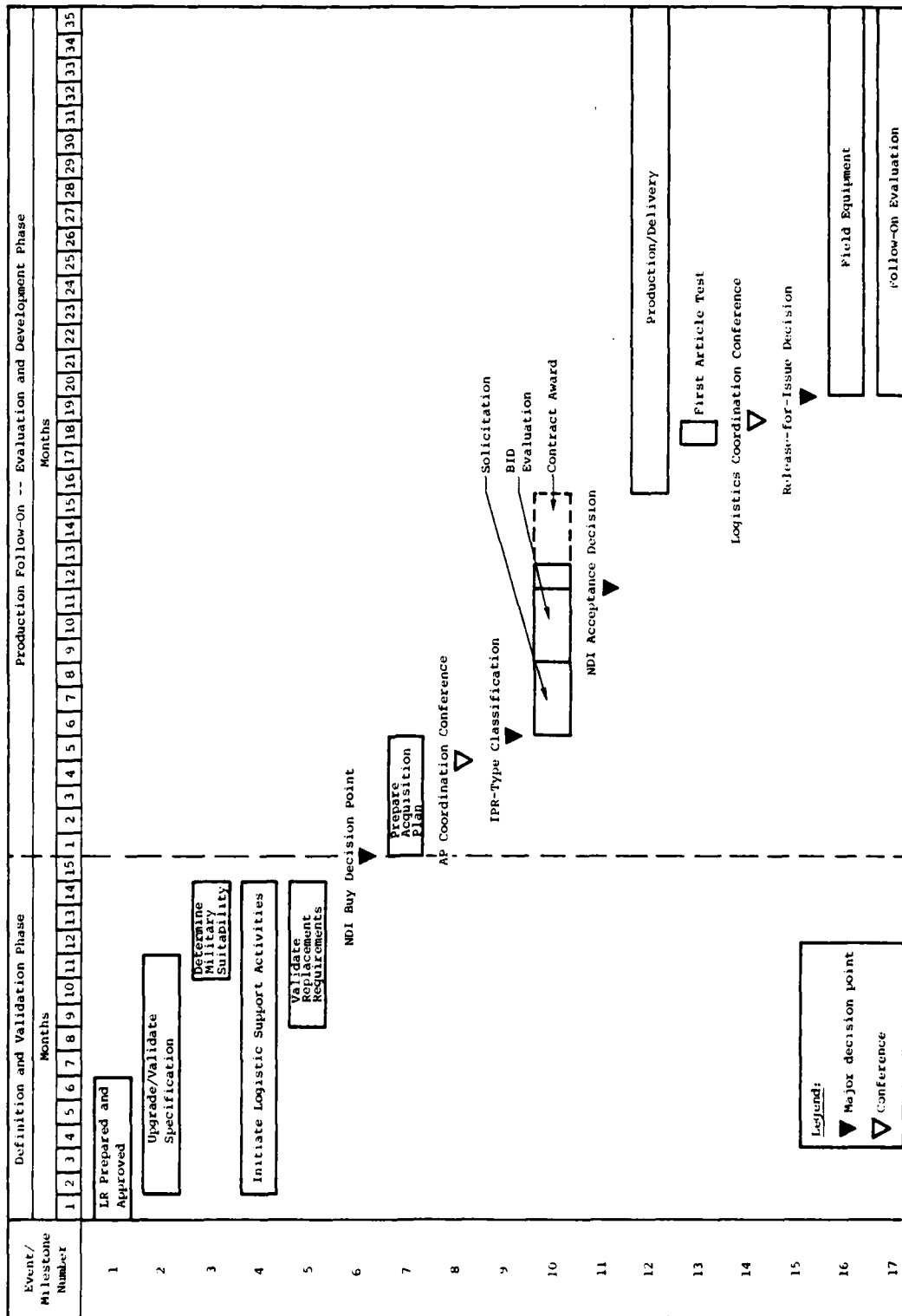


Figure 3-1. NDI ACQUISITION MANAGEMENT MODEL FOR OTS ETE

#### E/M-2: Upgrade/Validate Specification

E/M-2 starts with a known requirement, i.e., the LR, and determines if that requirement can be satisfied by the competitive procurement of an OTS ETE. Any existing specification that is similar to the required item must be updated to reflect the current state of the art as well as the specific requirements of the LRs. If no specifications exist, one must be prepared. The upgrading or development of specifications provides an opportunity to the developer to enhance Army test capabilities and reduce logistic support cost by combining TMDE families into one specification (if possible) and by specifying advanced, but proven, ETE. The specification is validated when at least one vendor's product can meet the stated requirements. To promote completion, it may be necessary to relax the constraints of the LR/specification. Specifications are prepared in MIL-T-28800 format. Responsibility: materiel developer.

#### E/M-3: Determine Military Suitability

If the specification fully meets the requirements of the LR, this event is optional. However, if the LR has been relaxed, for example, to promote competition, it must be determined whether the specification will result in the procurement of an acceptable NDI. Responsibility: combat developer.

#### E/M-4: Initiate Logistic Support Activities

The objective of E/M-4 is to identify and initiate all ILS activities associated with the procurement of an OTS ETE, with specific emphasis on those documents required in the Acquisition Plan (AP), e.g., initial Logistic Support Analysis (LSA), formulation of a system support concept. Responsibility: materiel developer. References: ARs 70-27 and 700-127, DARCOM Suppl 1 to AR 700-127, and AMCP 750-16.

#### E/M-5: Validate Replacement Requirements

The LR identifies those TMDE, by M/M, which will be replaced by the OTS ETE to be procured. This event is concerned with validation of the need or desirability of replacing each of these items and determination of the sequence in which they should be replaced. For example, there are more than 40 M/M of oscilloscopes being replaced by the new DC-100 MHz oscilloscope (1982\*LR25\*S2). The replacement sequence should be based on first replacing older oscilloscopes and those which require the greatest expenditures of O&M dollars to maintain. This is desirable since the acquisition cycle may extend over two to five years, or adequate funds may not be available for a total replacement for each TMDE family. Responsibility: materiel developer.

#### E/M-6: NDI Buy Decision Point

All events leading to E/M-6 were accomplished to convince the combat and materiel developers and LEA that the acquisition of an NDI will satisfy the requirements of the LR. The decision to proceed with the acquisition of an OTS ETE must carry a commitment from all members of the

decision-making body, i.e., DARCOM, LEA, and TRADOC. Minor modifications to the OTS ETE that may be required to meet LR/specification requirements are permissible, provided the modifications do not compromise the reliability or maintainability of the instrument. Responsibility: combat and materiel developers and LEA.

#### E/M-7: Prepare Acquisition Plan

The AP includes preparation of all the documents required to acquire, type-classify, and provide logistic support to the item that will be procured. This includes, at a minimum, the following:

- Procurement Plan and Strategy (DAR 1-2102)
- Materiel Fielding Plan (MFP) (DARCOM Suppl 1 to AR 700-127)
- Plan for Logistic Support (DARCOM Suppl 1 to AR 700-127)
- LSA (AR 700-127)
- QQPRI (AR 611-1)
- BOIP (AR 71-2)
- IEP (ARs 70-10 and 71-3)
- Specification/Functional Description of Item to be Procured
- Follow-On Evaluation Plan/Methodology
- Request to Purchase TMDE and CTA Approval (AR 750-43)
- Training Support Plan

Included in the AP is an agreement between the combat and materiel developers and LEA on specific contract acceptance tests that will be conducted and on the warranty provisions required. Responsibility: materiel developer, with data inputs as required from other participating commands. The combat developer prepares an IEP for the user. Reference: AR 70-27.

#### EM-8: Acquisition Plan Coordination Conference

The objective of E/M-8 is to review the AP and to ensure inclusion on schedule of the data required to successfully complete the type classification process at the upcoming IPR. Responsibility: materiel developer in coordination with the combat developer and LEA.

#### E/M-9: IPR-Type Classification

E/M-9 is the second major decision point/milestone in the NDI acquisition process for OTS ETE. The objective of the type-classification IPR is to document the acceptability and suitability of an OTS ETE to meet specified test/measurement requirements and to ensure its supportability. The type classification is based on the data contained in the AP and not a specific vendor's OTS ETE. Responsibility: combat and materiel developers and LEA. Reference: AR 71-6.



#### E/M-10: Solicitation and Contract Award

E/M-10 is divided into (1) solicitation, (2) bid evaluation, and (3) contract award.

- Solicitation. The solicitation package consists of the following:
  - Specification or functional description
  - Quantity and delivery schedule required, quantity options
  - A commercial clause, with proof required (This is to ensure that the Army procures a proven product.)
  - Bid evaluation method, e.g., product suitability, LCC, contractor support, warranty
  - ILS requirements -- vendor capability/support plan
  - Request for product history and names, locations, and telephone numbers of customers (with emphasis on military customers)
  - Configuration control requirements
  - Other contractual information, as required
- Bid Evaluation. This consists of an independent evaluation of each vendor's response by both the combat and materiel developers. The materiel developer will determine initially which vendors' bids are technically and logistically acceptable. For products that are acceptable, the combat developer will determine the military compatibility and suitability of each offerer's product. The combat and materiel developers will jointly evaluate each vendor's support plan and product history (this will include interviewing known customers of the product). Every effort should be made to obtain from existing customers of the product statistical data on the products offered. On those products found acceptable by both the materiel and combat developers, an LCC analysis will be performed to determine the lowest cost of ownership to the Government. (See ARINC Publication 1078-02-3-1770 for suggested LCC Procurement Approach for OTS ETE.)
- Contract Award. On the basis of the various vendors' responses, the bid evaluation discussed above, and subsequent negotiations, the contract is awarded. Responsibility: materiel and combat developers.

#### E/M-11: NDI Acceptance Decision

E/M-11 is the third major milestone in the NDI acquisition process for OTS ETE; it consists of a signed agreement by voting members of the decision-making body. The agreement will identify those products found to be acceptable to all the voting members. A copy of the agreement will be provided to the contracting officer, who will award the contract to one of the vendors listed on the basis of the lowest cost of ownership to the Government. Responsibility: combat and materiel developers and LEA.

#### E/M-12: Production and Delivery

During E/M-12 the product is produced and delivered to the Government as specified in the contract. Responsibility: materiel developer.

#### E/M-13: First-Article Test

The first-article testing takes place at the contractor's facility and is used to verify compliance with the terms of the contract. Specific emphasis is placed on quality assurance, configuration control, and the vendor's logistic support plan. Responsibility: materiel developer.

#### E/M-14: Logistics Coordination Conference

All logistic support activities and plans are reviewed to determine whether the equipment is ready to be fielded. In addition, the MFP is put in final form for distribution to the commands receiving the equipment. Responsibility: materiel developer.

#### E/M-15: Release-for-Issue Decision

The release-for-issue decision is the last major decision to be made in the OTS ETE acquisition process. It is made when the program manager is completely satisfied that the materiel to be fielded meets the technical requirements and is supportable in the field. Responsibility: materiel developer in coordination with the combat developer. Reference: DARCOM-R 700-34.

#### E/M-16: Field Equipment

In E/M-16 the equipment is issued in accordance with applicable documents and procedures. Responsibility: materiel developer.

#### E/M-17: Follow-On Evaluation

The objective of the follow-on evaluation is to determine whether logistic support provided for the item is adequate and to monitor the performance of the equipment. The combat developer will evaluate the logistic support system developed for the item and inform the materiel developer of changes required for resolution. The materiel developer, through the LAOs and the U.S. Army Metrology and Calibration Center (USAMCC) and in coordination with the combat developer, will monitor the performance of the equipment in the field. These data will assist in structuring future solicitations for the TMP using the NDI acquisition process. Responsibility: combat and materiel developers.

#### 3.2.4.2 TPP by Fiscal Year

The TPP by fiscal year (1981-1985) was developed on the basis of the OTS ETE NDI Acquisition Management Model discussed above and the LR requirements shown in Table 3-5. The LRs within a given FY were divided into

four groups to spread the acquisition process over the four quarters of the fiscal year. The LRs are not listed in priority sequence and are therefore subject to rearrangement in accordance with priorities to be established and to funding. The TPPs for FY 1981 to FY 1985 are illustrated in Figures 3-2 through 3-6, respectively. The E/M number in the left-hand margin of each figure is related to the corresponding E/M number in Figure 3-1 as discussed in subsection 3.2.4.1.

The figures are oriented to the "FY Buy Year," i.e., the fiscal year in which the Army is planning to buy the product specified in the LR. The plan for any given fiscal year requires approximately 18 quarters (54 months, or 4.5 years) to complete.

#### 3.2.4.3 TPP Overview (OTS ETE NDI Acquisition Process)

By use of the data depicted in Figures 3-2 to 3-6, a TPP Overview (Figure 3-7) was developed for the five fiscal years currently planned for the TMP. The overview is oriented toward the "FY Buy Year" and is divided into four parts representing the four quarters in a fiscal year.

#### 3.2.5 Implementation of the TPP

According to the NDI Acquisition Management Model for OTS ETE, the acquisition process begins when the LR is in the final stages of approval. The LR triggers a chain of E/M that must be accomplished for each acquisition. The period depicted in the model for each event is an approximation; it can probably be reduced as experience is acquired in completing prescribed activities. In addition, a management chart that establishes dates for completing specific E/M can be developed for each LR to be satisfied. This will enable the program manager to monitor the progress for each acquisition and to position resources to overcome bottlenecks or delays.

It is probably too late to apply the NDI acquisition process to those procurements occurring in FY 1981. However, specific activities associated with those procurements (e.g., validating replacement requirements, E/M-5) can and should be implemented immediately. For those procurements planned for FY 1982 and FY 1983, those events described in the Definition and Validation Phase of the model should also be implemented immediately. Particular emphasis is required on the preparation or upgrading and validation of an OTS ETE specification for each applicable LR, the validation of replacement requirements, and the identification and preparation of those documents required for the Acquisition Plan. Sufficient resources must be allocated for these purposes if the TMP is to be successfully implemented.

### 3.3 RESULTS OF SUBTASK 4C: EVALUATE THE IMPACTS OF NOT DELIVERING MODERNIZED TMDE ON SCHEDULE

#### 3.3.1 Cost and Replacement Data

Cost and replacement data for LRs identified as replacements for the current inventory in FY 1981 through FY 1985 are shown in Tables 3-6 through

3-10. Each table gives the total number of current items that are to be replaced, the total acquisition cost, the total LCC to retain the current inventory, the total LCC of the preferred item, and the resultant positive or negative cost savings derived as a benefit of the acquisition. These data were extracted from all of the LCC economic analyses (EAs) reported to CERCOM by ARINC Research and from those LCCs completed to date by CERCOM. Review of the data in the figures makes it readily apparent that there are numerous data gaps in terms of specific cost information, particularly for FY 1983, 1984, and 1985 (see Appendix F).

Table 3-6. COST AND REPLACEMENT DATA FOR FY 1981					
Draft LR Name	Number of M/M Replaced By LR	Investment Cost	20-Year Cost To Retain Inventory	20-Year Cost of Preferred Item	Potential Cost Savings (+ or -)
Frequency Counter A 0 - 500 MHz	8	\$ 4,332,858	\$29,801,904	\$12,179,760	\$17,622,144
Frequency Counter B 10 Hz - 18 GHz	5	10,099,892	New Item	--	New Item
Frequency Counter C 300 kHz - 18 GHz w/RF Pulse	0	4,779,941	New Item	--	New Item
Signal Generator B 50 kHz - 80 MHz	Unknown	1,682,100	Unknown	--	Unknown
Signal Generator I 7.0 - 11.0 GHz	4	1,038,200	3,404,338	2,474,746	929,592

In FY 1981, two of the five items of ETE are new to the inventory and consequently would not yield any cost savings. Because of the limited number of items to be purchased and the fact that two-fifths of the items are new, it was decided to exclude the FY 1981 data from the overall projection. In addition, there was an insufficient quantity of cost data for FY 1983, 1984, and 1985. As a result, it was considered appropriate and necessary to treat the FY 1982 cost and replacement data as a baseline from which to project the cost, replacement data, and potential savings into the subsequent fiscal years.

Table 3-11 presents the initializing factors for the projections to be made of total program cost savings. Given the cost, replacement data, and funding levels of the FY 1982 LCC EAs thus far completed, a ratio was established and projected for each category. (Note: All cost data are reflected in inflated dollars based on the "Inflation Indices" provided by CERCOM.) This initial projection resulted in an average (mean) cost and a median cost within each of the cost categories per LR. For subsequent fiscal years, the total was derived by multiplying the mean cost and the median cost (or saving) by the number of LRs for the particular fiscal year. Then the ratios for funding objective and programmed-level over funds required were determined and subtotaled. This projection is portrayed in Table 3-12.

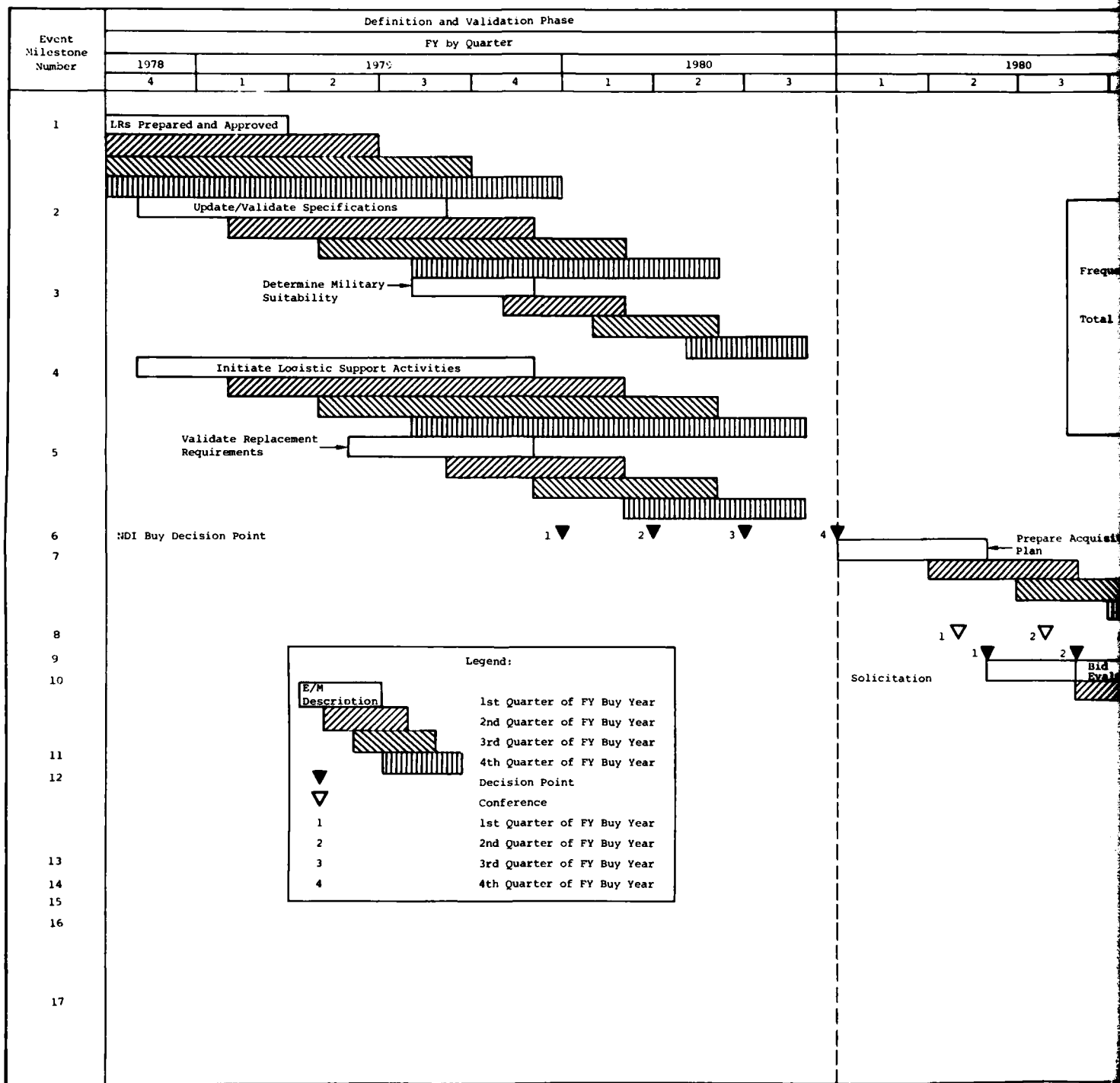


Figure 3-2. TIME-PHASED PLAN

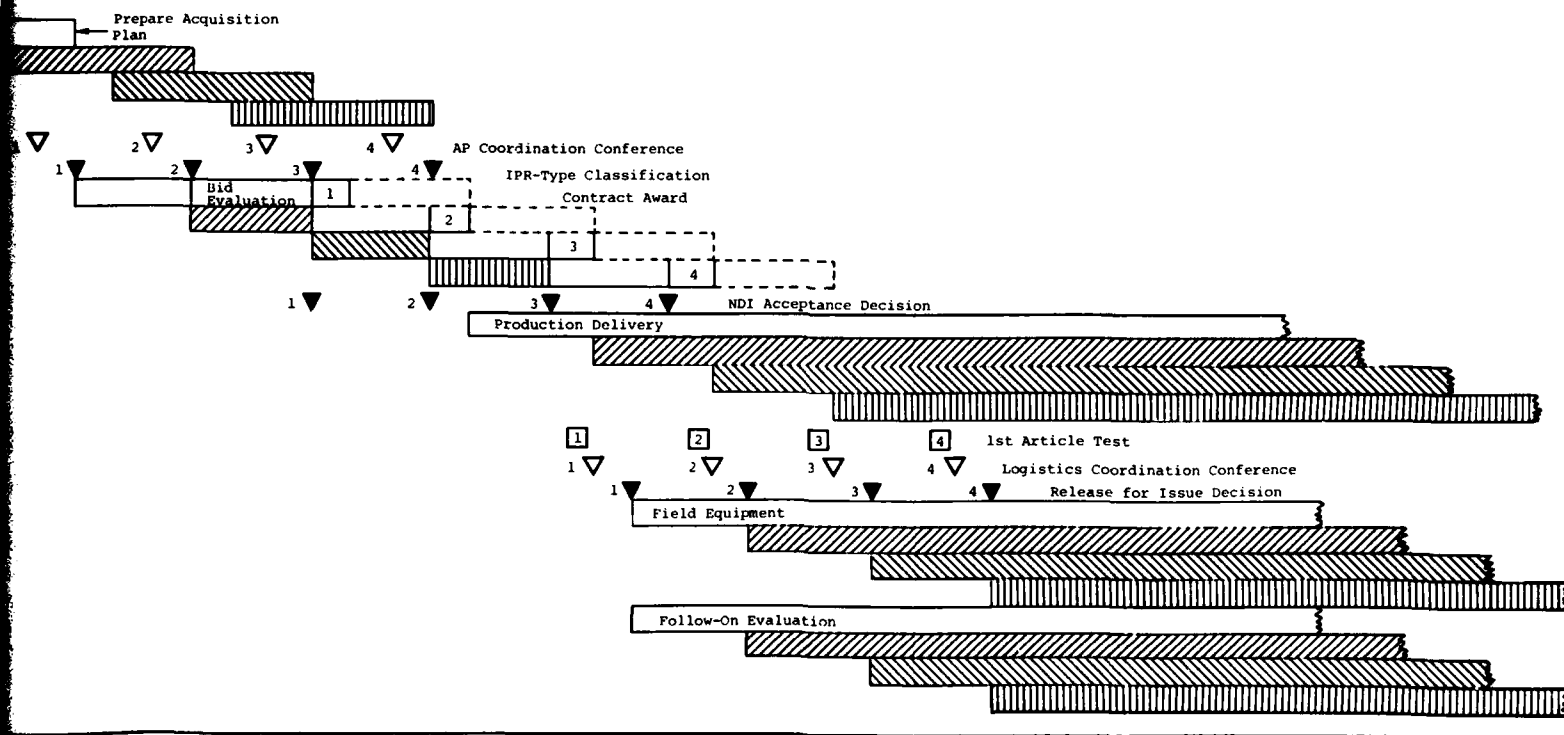
Production Follow-On -- Evaluation and Development Phase

FY by Quarter

1980			1981				1982				1983	
2	3	4	1	2	3	4	1	2	3	4	1	2

FY Buy Year 1981: LR Requirements by FY Quarter

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Frequency Counter A	Frequency Counter B	Signal Generator B	Signal Generator I
	Frequency Counter C		
Total LRs: 5			



TIME-PHASED PLAN FOR FISCAL YEAR 1981

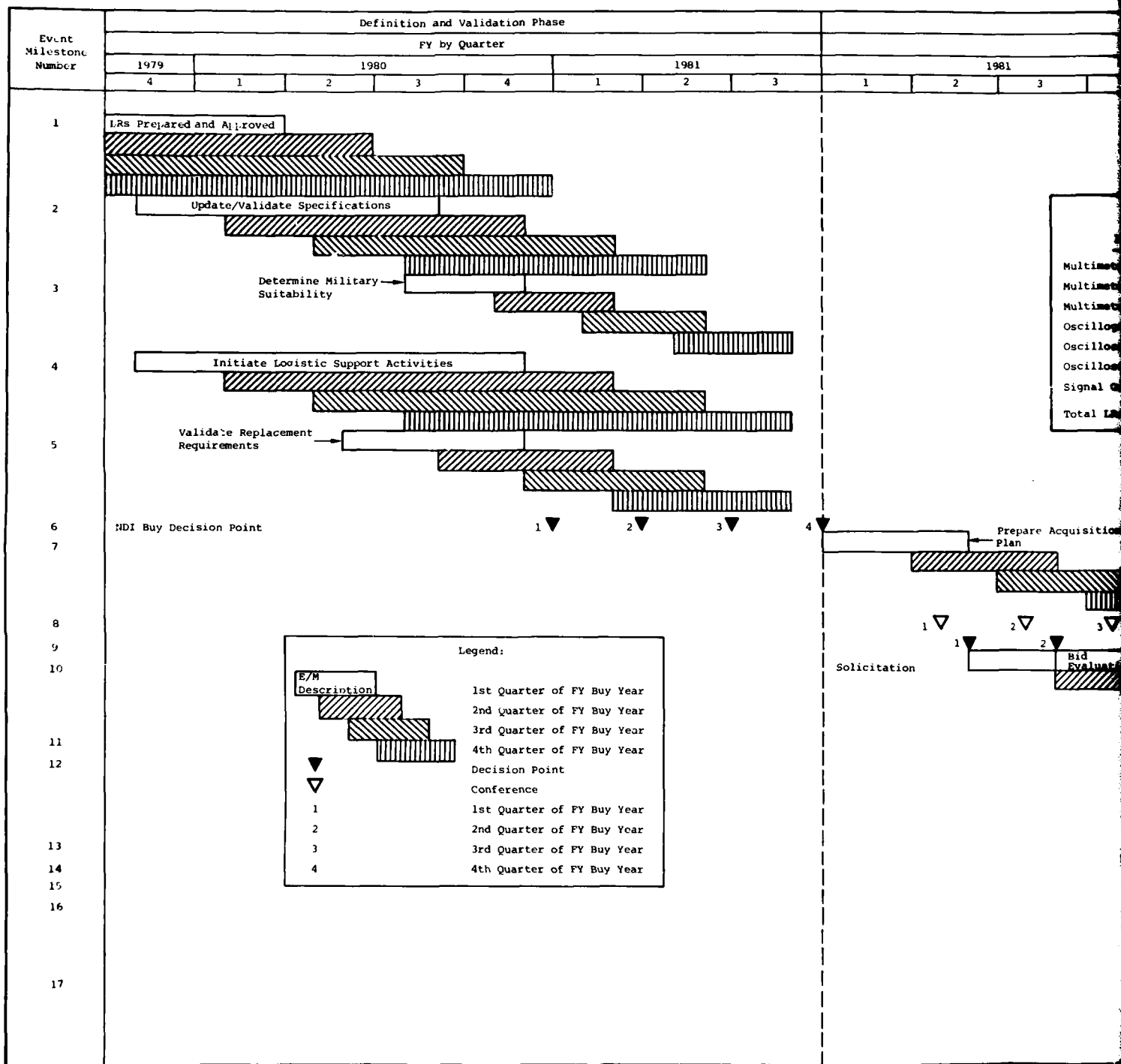


Figure 3-3. TIME-PHASED PLAN

Production Follow-On -- Evaluation and Development Phase

FY by Quarter

1981

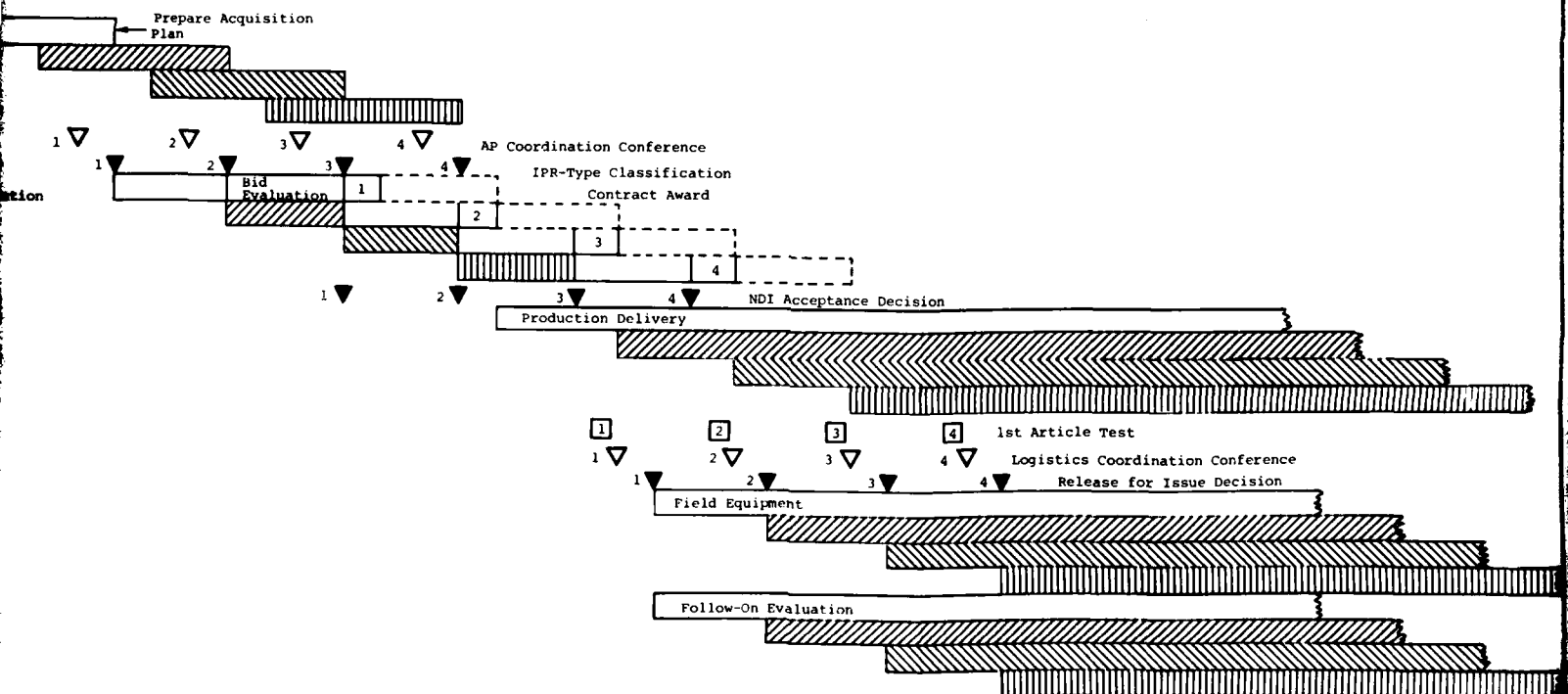
1982

1983

1984

FY Buy Year 1982: LR Requirements by FY Quarter

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Multimeter (Analog)	Oscilloscope C	Signal Generator E	Signal Generator, Sweep B
Multimeter A (3-1/2)	Oscilloscope D	Signal Generator F	Signal Generator, Sweep C
Multimeter B (4-1/2)	Oscilloscope E	Signal Generator G	TS, Semiconductor
Oscillographic Recorder	Oscilloscope F	Signal Generator, Function	Digital Voltmeter
Oscilloscope A	Signal Generator A	Signal Generator, Pulse	Voltmeter, Multifunction
Oscilloscope B	Signal Generator C	Signal Generator, Sweep A	Signal Generator H
Signal Generator J	Signal Generator K		
Total LRs: 26			



3. TIME-PHASED PLAN FOR FISCAL YEAR 1982



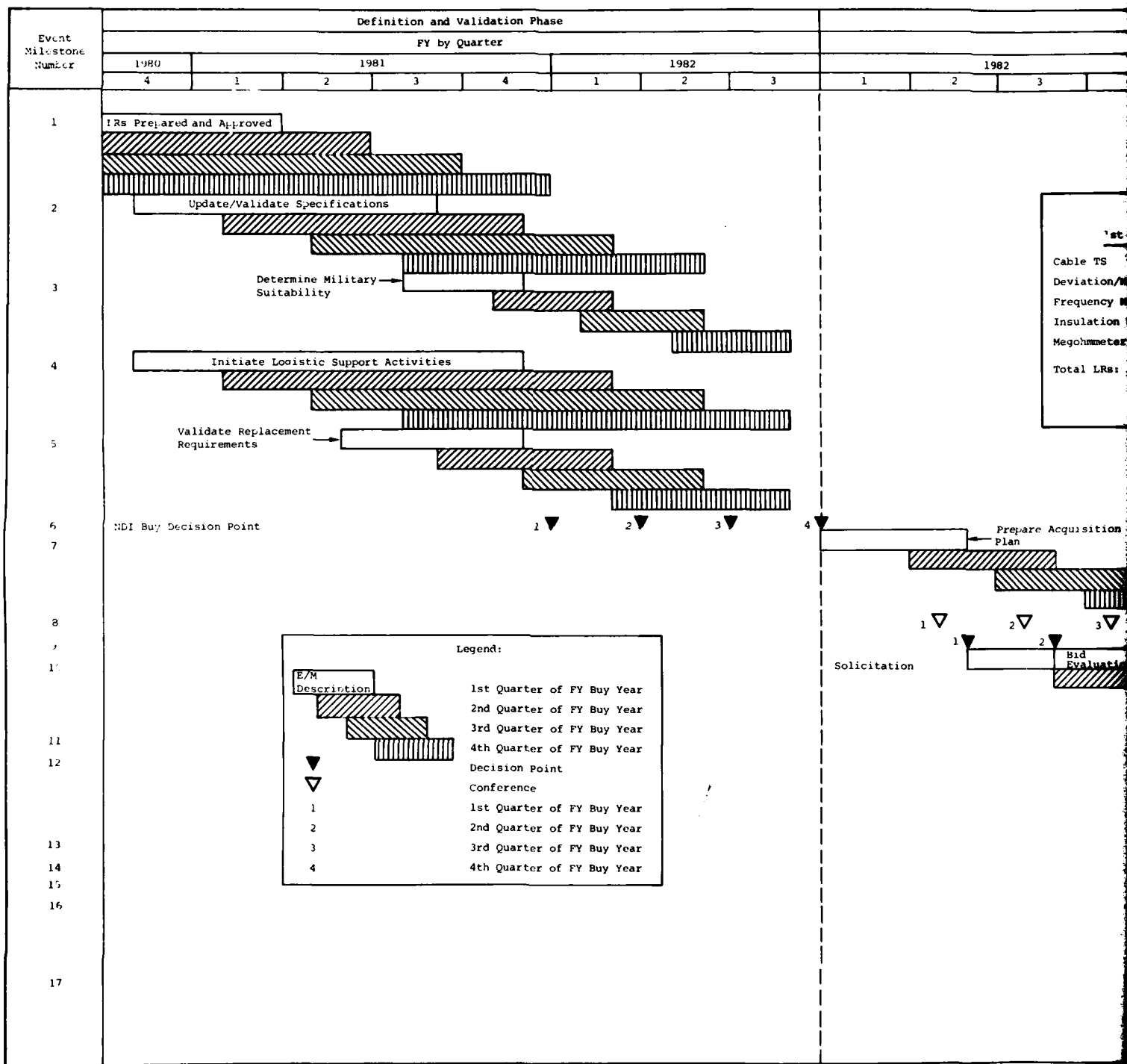


Figure 3-4. TIME-PHASED PLAN

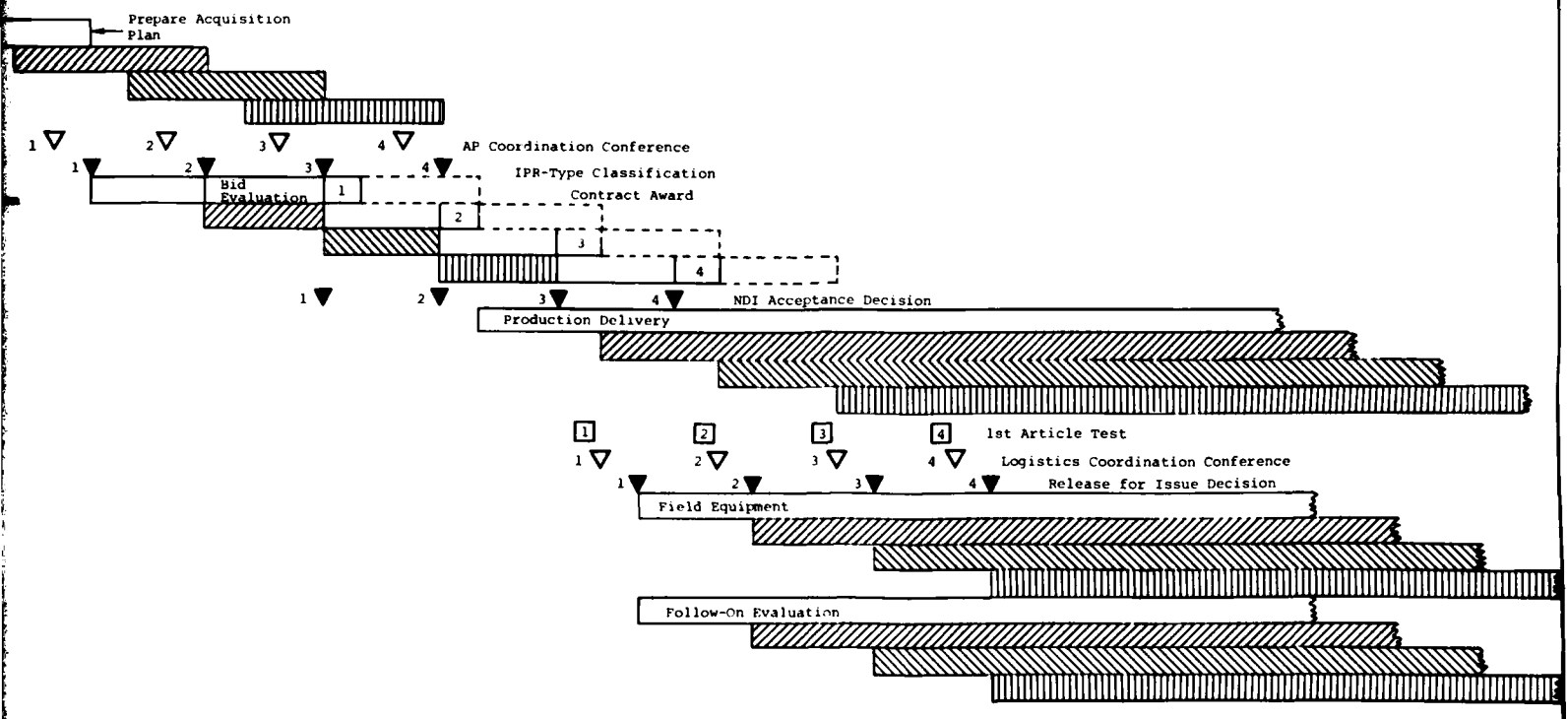
Production Follow-On -- Evaluation and Development Phase

FY by Quarter

1982				1983				1984				1985	
1	2	3	4	1	2	3	4	1	2	3	4	1	2

FY Buy Year 1983: LR Requirements by FY Quarter

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Cable TS	Pattern Generator	Spectrum Analyzer D	Voltmeter, True RMS and DB
Deviation/Modulation Meter	Resistor, Decade	Teletype TS	Voltmeter, Vector
Frequency Meter	Spectrum Analyzer A	Temperature Indicator	Wattmeter A
Insulation TS	Spectrum Analyzer B	Transmission TS (Telephone)	Wattmeter B
Megohmmeter	Spectrum Analyzer C	Voltmeter, Differential	X-Y Recorder
Total LRs: 20			



TIME-PHASED PLAN FOR FISCAL YEAR 1983

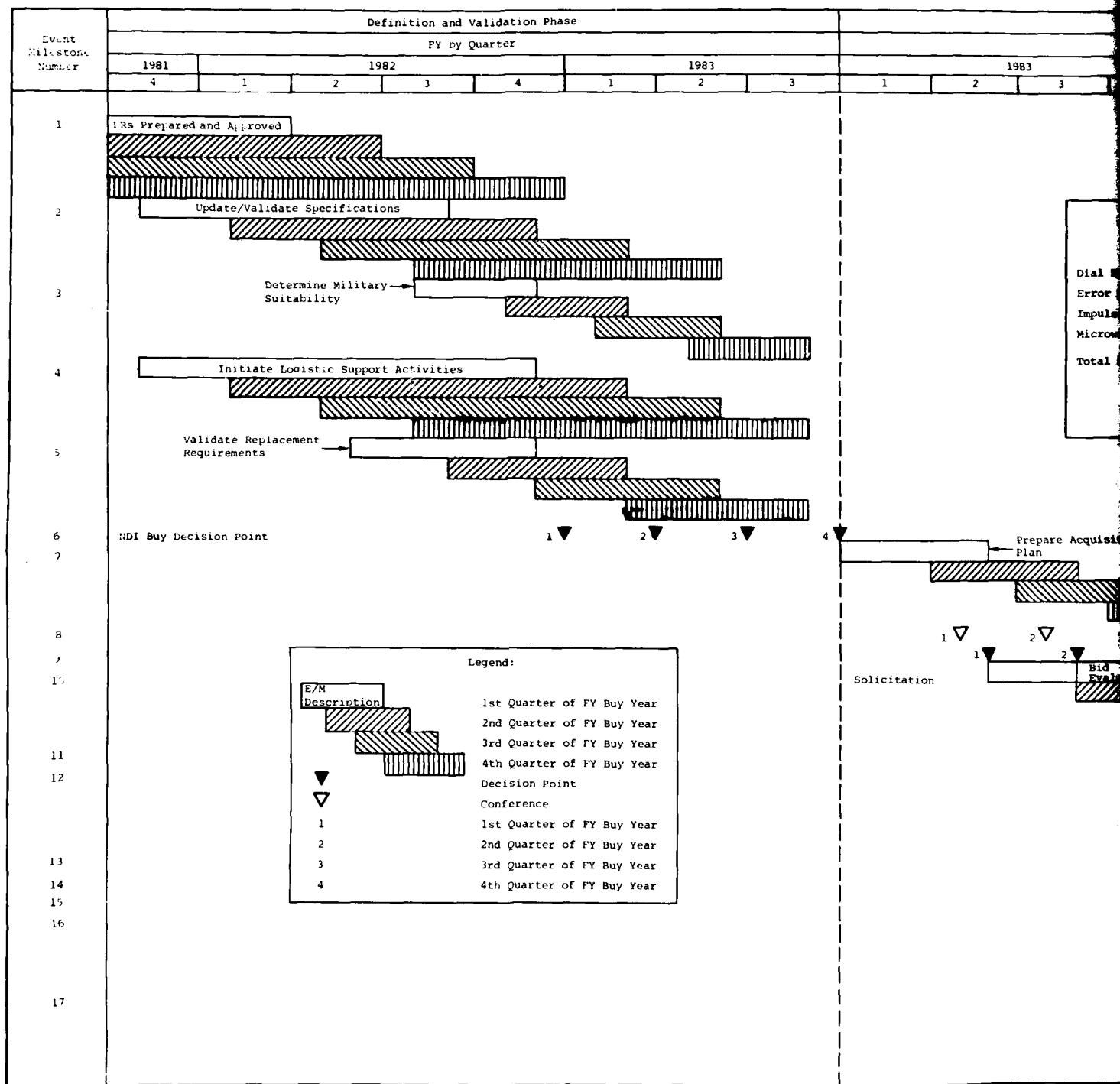


Figure 3-5. TIME-PHASED PLAN

Production Follow-On -- Evaluation and Development Phase

FY by Quarter

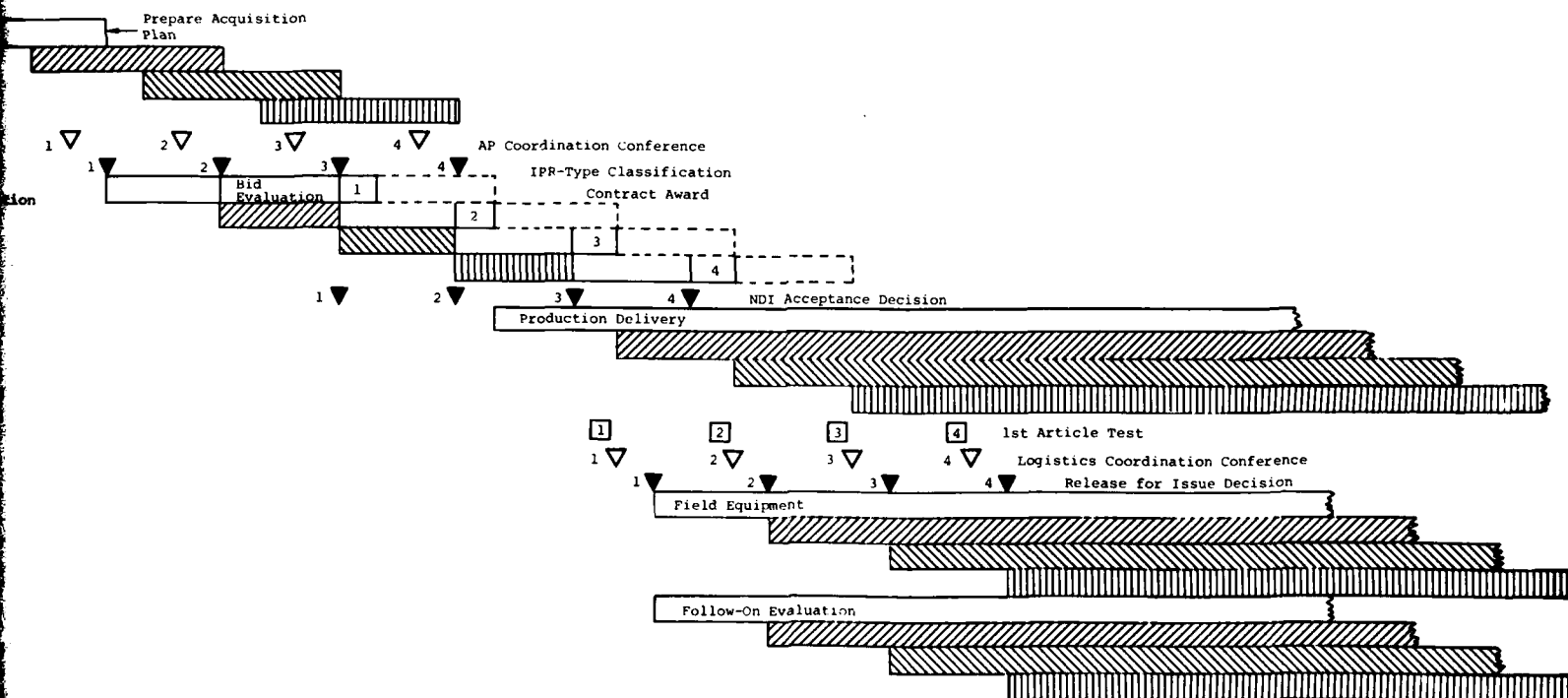
1983

1984

1985

1986

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Dial Equipment TS	Noise Loading TS A	Teletype TS, Analyzer	Voltmeter Frequency Selector
Error Rate Counter	Phase Jitter Meter	Transmission TS	Wattmeter C
Impulse Noise TS	Signal Generator, Thermal Noise	Universal Bridge	Distortion Analyzer
Microwave Analyzer	SWR Meter	AC Voltmeter	
Total LRs: 15			



TIME-PHASED PLAN FOR FISCAL YEAR 1984

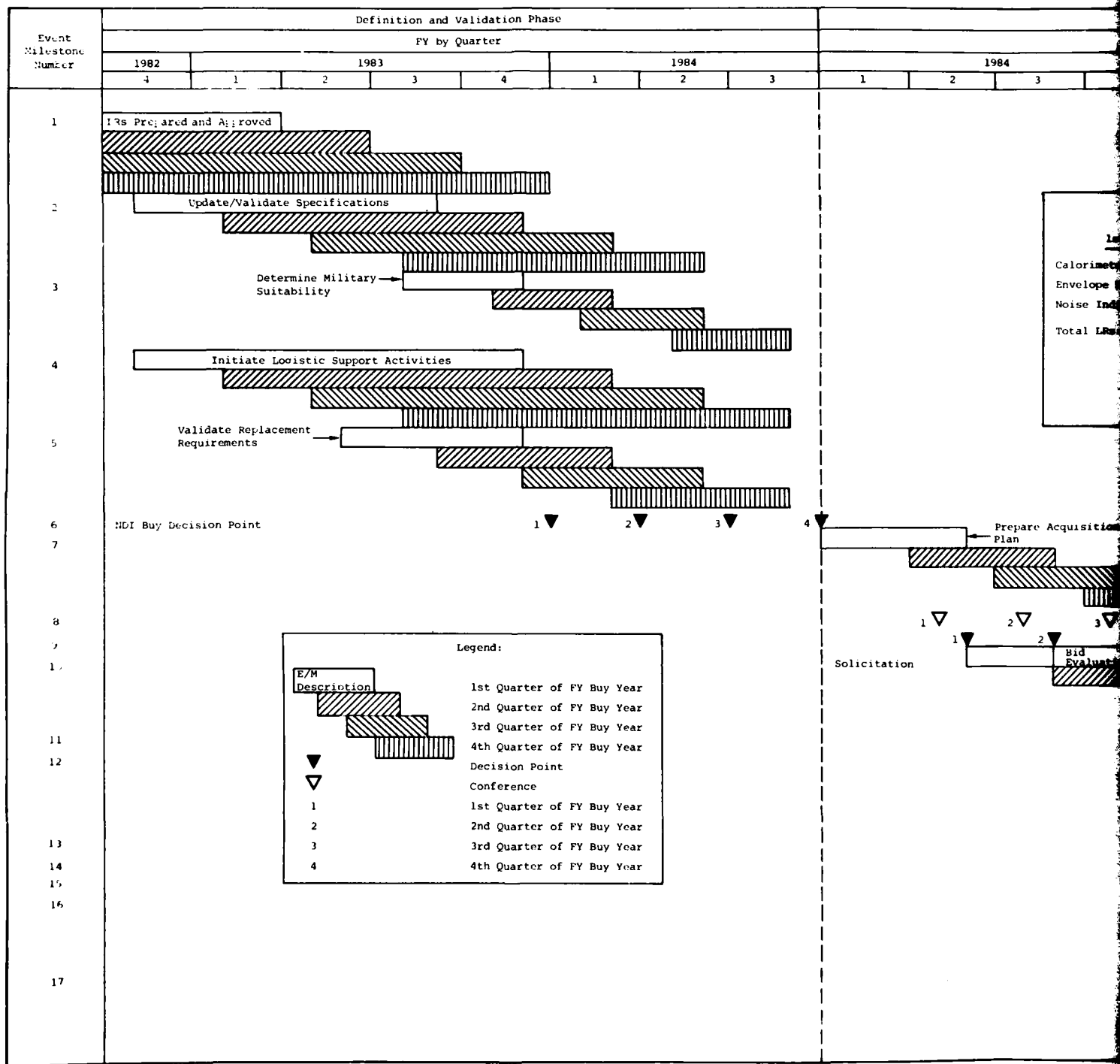


Figure 3-6. TIME-PHASED PLAN FOR

Production Follow-On -- Evaluation and Development Phase

FY by Quarter

1984

2

3

4

1985

1

2

3

4

1986

1

2

3

4

1987

1

2

FY Buy Year 1985; LR Requirements by FY Quarter

1st Quarter

Calorimeter

Envelope Delay TS

Noise Indicator

Total LRs: 10

2nd Quarter

Noise Loading TS B

Null Balance Earth Tester

Signal Generator L

3rd Quarter

Signal Generator M

Signal Generator N

4th Quarter

Stroboscope

Vector Impedance Voltmeter

Prepare Acquisition Plan

AP Coordination Conference

IPR-Type Classification

Contract Award

NDI Acceptance Decision

Production Delivery

1st Article Test

Logistics Coordination Conference

Release for Issue Decision

Field Equipment

Follow-On Evaluation

TIME-PHASED PLAN FOR FISCAL YEAR 1985

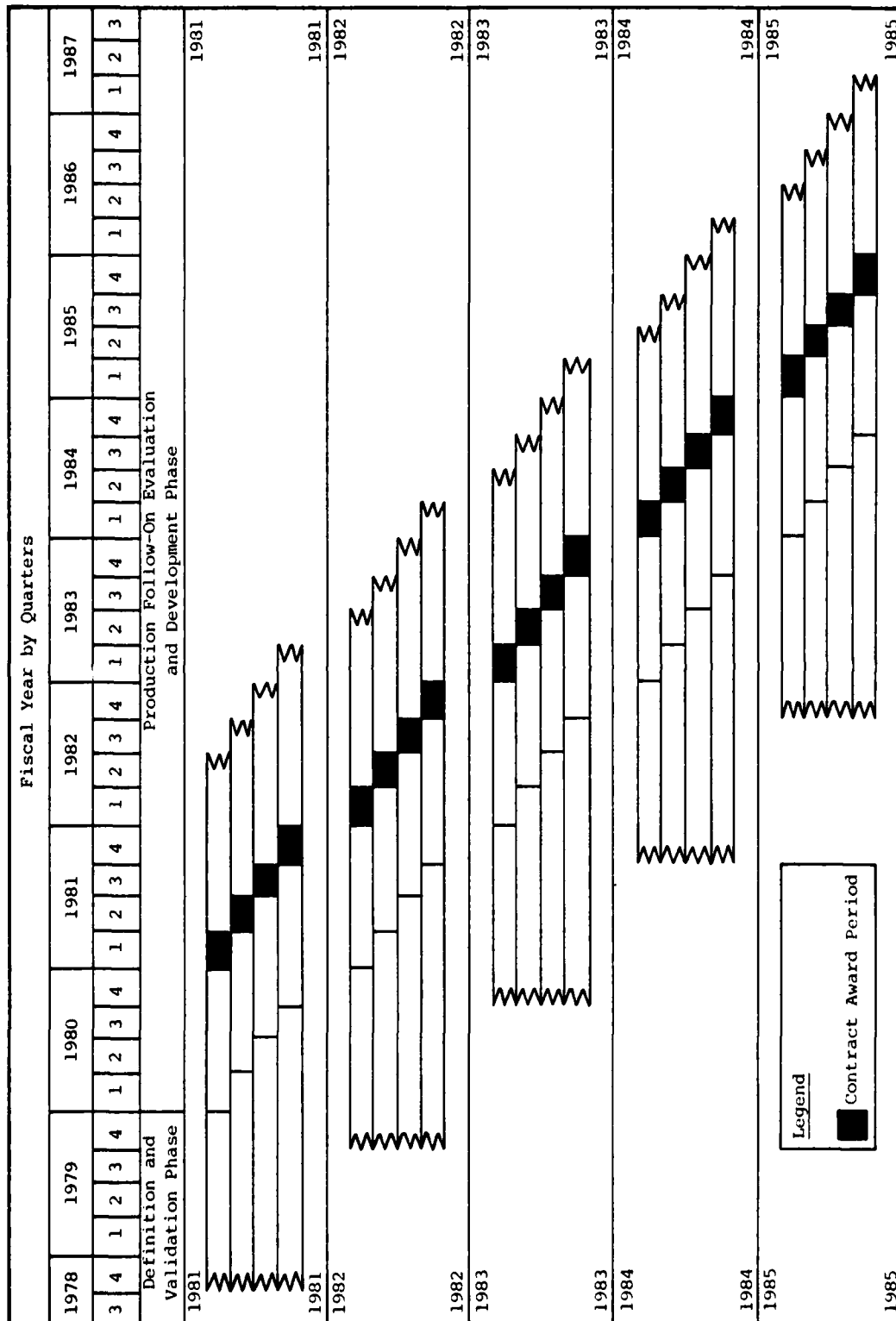


Figure 3-7. OVERVIEW OF TIME-PHASED PLAN (TPP) (OTS ETE NDI ACQUISITION PROCESS)

Table 3-7. COST AND REPLACEMENT DATA FOR FY 1982

Draft LR Name	Number of M/M Replaced By LR	Investment Cost	20-Year Cost To Retain Inventory	20-Year Cost of Preferred Item	Potential Cost Savings (+ or -)
Electronic Analog Multimeter	6	\$ 5,911,373	\$ 277,024,514	\$ 54,073,507	\$222,951,007
Digital Multimeter 3 1/2 Digits	19	12,261,994	117,048,563	79,349,882	37,698,741
Digital Multimeter 4 1/2 Digits	9	1,344,015	28,357,599	12,133,732	16,223,867
Oscillographic Recorder	12				
Oscilloscope DC - 15 MHz	63	3,594,197	206,626,033	31,094,019	175,530,014
Oscilloscope DC - 100 MHz	43	23,463,129	472,389,351	147,610,453	324,778,898
Oscilloscope, Storage DC - 100 MHz	7				
Oscilloscope DC - 200 MHz	6				
Oscilloscope DC - 400 MHz	5				
Oscilloscope DC - 500 MHz	5				
Signal Generator, Low Frequency Audio Oscillator	42	7,202,394	99,654,585	54,685,561	44,969,024
Signal Generator, UHF 450 kHz - 512 MHz	24	7,213,238	107,095,344	52,099,152	55,806,192
Signal Generator, UHF 500 MHz - 1.2 GHz	2	605,222	14,813,046	8,371,787	6,441,259
Signal Generator, UHF 800 MHz - 2.4 GHz	8	5,704,928	42,133,890	37,569,843	4,564,047
Signal Generator, SHF 1.8 - 4.0 GHz	3	2,341,228	21,757,212	19,088,148	2,669,064
Signal Generator, SHF 3.8 - 7.0 GHz	6	4,208,458	26,931,803	28,654,462	-1,722,659
Signal Generator, SHF 10.0 - 15.0 GHz	1	182,669	4,051,171	5,365,774	-1,314,603
Signal Generator, SHF 2.0 - 18.0 GHz	5	1,146,940	5,139,556	10,768,573	-5,629,017
Signal Generator, Function	15	908,468	50,596,769	10,634,621	39,962,148
Signal Generator, Pulse	16	1,043,955	53,455,146	12,469,284	40,985,862
Signal Generator, Sweep 100 kHz - 110 MHz	5				
Signal Generator, Sweep 10 MHz - 1 GHz	6				
Signal Generator, Sweep 1 GHz - 40 GHz	11				
Test Set, Semiconductor	15				
Digital Voltmeter	7	3,508,974	40,706,129	25,985,311	14,810,218
Multifunction RF Voltmeter	5				
Totals	346	40,641,182	1,568,590,711	589,864,649	978,674,062



Table 3-8. COST AND REPLACEMENT DATA FOR FY 1983					
Draft LR Name	Number of M/M Replaced By LR	Investment Cost	20-Year Cost To Retain Inventory	20-Year Cost of Preferred Item	Potential Cost Savings (+ or -)
Cable Test Set	7				
Decade Resistor	1				
Differential Voltmeter	3		\$17,303,004	\$16,398,574	\$ 914,430
Frequency Meter	1				
Insulation Test Set	11				
Megohmmeter	3				
Modulation Meter	8				
Pattern Generator	7		21,036,380	10,324,930	10,711,450
Spectrum Analyzer 15 Hz - 50 kHz	4				
Spectrum Analyzer 4 kHz - 9.1 MHz	5				
Spectrum Analyzer 10 MHz - 40 GHz	14		49,952,261	28,533,405	21,398,856
Teletype Test Set	15				
Temperature Indicator	2				
Transmission Test Set (Telephone)	29				
True RMS Voltmeter and DB Meter	5				
Vector Voltmeter	5				
Wattmeter (500 W) 30 MHz - 500 MHz	12				
Wattmeter (10 kW) 2 MHz - 2.3 GHz	5		28,069,339	19,109,336	8,960,006
X-Y Recorder	6				
Spectrum Analyzer 100 kHz - 1.5 GHz	7				

The primary fact brought out in Table 3-12 is that for a fully funded scenario, significant savings can be realized; conversely, a zero-funded scenario (no funding provided for the TMP) results in greater dollar expenditures. Thus a saving of \$4,343.07 million can be realized over a 20-year life cycle if an expenditure of \$379.94 million is made over a period of five years. An expenditure of more than \$6,961.55 million will be required to continue to support the current inventory in a "no funding" situation for the TMP. At the current programmed level of \$91.1 million for the next five years, a projected saving of only \$826.42 million is realized. The projected cost to retain the current inventory at the current programmed level amounts to a \$5,617.29 million expenditure. Even if the funding objective of \$160 million as originally established by CERCOM is achieved,

Table 3-9. COST AND REPLACEMENT DATA FOR FY 1984					
Draft LR Name	Number of M/M Replaced By LR	Investment Cost	20-Year Cost To Retain Inventory	20-Year Cost of Preferred Item	Potential Cost Savings (+ or -)
AC Voltmeter	13		\$14,426,817	\$13,908,080	\$ 518,737
Dial Equipment Test Set	4				
Distortion Analyzer	12				
Error Rate Counter	6				
Frequency Selective Voltmeter	3				
Impulse Noise Test Set	1				
Microwave Link Analyzer	5				
Noise Loading Test Set A	3				
Phase Jitter Meter	4				
Signal Generator, Thermal Noise	3				
Standing Wave Ratio Meter (SWR)	16				
Teletype Analyzer	15		28,069,339	19,109,336	8,960,060
Transmission Test Set	4				
Universal Bridge	15		21,769,417	15,810,230	5,959,187
Wattmeter (10 mW) 1 MHz - 18 GHz	5				

Table 3-10. COST AND REPLACEMENT DATA FOR FY 1985					
Draft LR Name	Number of M/M Replaced By LR	Investment Cost	20-Year Cost To Retain Inventory	20-Year Cost of Preferred Item	Potential Cost Savings (+ or -)
Calorimeter	4				
Envelope Delay Test Set	4				
Noise Indicator	5				
Noise Loading Test Set B	1				
Signal Generator, SHF 15 GHz - 21 GHz	2				
Stroboscope	3				
Vector Impedance Meter	1				
Null Balance Earth Tester	2				
Signal Generator, SHF 18 GHz - 26.5 GHz	Unknown				
Signal Generator, SHF 26.5 GHz - 40 GHz	Unknown				

Table 3-11. TMP FY FUNDING DATA* (IN MILLIONS OF DOLLARS)				
Cost Category	Actual Funds Required	TMP Funding Objective	TMP Programmed Level	No Funding for TMP
Funding Levels	80.6	32.0	14.7	0
Annual Savings	61.2	19.6**	8.8**	0
20-Year Life Savings	978.7	391.5**	176.2**	0
20-Year Cost to Retain Inventory	0	941.2**	1,286.3**	1,568.6
Extrapolation Element			Mean per LR	Median per LR
Replacement Cost			5.04	3.55
Annual Savings			3.06	1.35
20-Year Life Savings			61.17	26.96
20-Year Cost to Retain Inventory			98.05	46.36
*Data are for 16 of the 26 FY 1982 LRs in inflated dollars.				
**Data extrapolated on the basis of the ratios of the TMP Funding Objective and the TMP Programmed Level over the Actual Funds Required.				

it would result in a saving of only \$1,550.05 million, with an associated cost of \$4,476.97 million to maintain the inventory. The cost data for a fully funded program suggest a pay-back period of less than 2 years and a return of more than 11 dollars for every dollar invested for the mean, and less than 3 years and a return of more than 6 dollars for the median.

From a review of Table 3-12 it can be determined that modernized TMDE will not be available to the Army in the field, in accordance with the planned schedule, unless programmed funds are significantly increased. At present, an estimated shortfall of approximately \$290 million exists between the actual funds required and the programmed funds.

Cost data were extrapolated, by using both the average (mean) and the median from information contained in the 16 LCC EAs for FY 1982, in order to provide an expected range of costs and savings that can be realized from the TMP. In view of the limited quantity of cost data available on the 76 LRs, it was determined that this method of projecting cost data would quantify available data in the most useful way. ARINC Research believes that the actual funding required for the TMP is somewhere between the mean and the median, i.e., between \$273.95 million (median) and \$379.94 million (mean). As additional LRs are developed, the cost of the TMP will rise accordingly. It is important to continue developing cost and replacement data for all of the 76 LRs at an accelerated pace, in order to define the cost and context of the TMP accurately.

Table 3-12. TMP FY 1981-1985 FUNDING DATA*									
Fiscal Year	Number of LRs Required	Actual Funds Required		TMP Funding Objective		TMP Programmed Level		No Funding for TMP	
Projected Funding Levels (\$ Millions)									
1981	5	21.90	(21.90)	32.00	(32.00)	22.8	(22.8)	0	(0)
1982	26	131.04	(92.30)	32.00	(32.00)	14.7	(14.7)	0	(0)
1983	20	100.80	(71.00)	32.00	(32.00)	19.1	(19.1)	0	(0)
1984	15	75.60	(53.25)	32.00	(32.00)	17.5	(17.5)	0	(0)
1985	10	50.40	(35.50)	32.00	(32.00)	17.0	(17.0)	0	(0)
Total	76	379.94	(273.95)	160.00	(160.00)	91.1	(91.1)	0	(0)
Projected Annual Savings (\$ Millions)									
1982	26	79.52	(35.05)	19.09	(12.27)	8.75	(5.61)	0	(0)
1983	20	61.17	(26.96)	19.57	(12.13)	11.62	(7.28)	0	(0)
1984	15	45.88	(20.22)	19.27	(12.13)	10.55	(6.67)	0	(0)
1985	10	30.59	(13.48)	19.27	(12.13)	10.40	(6.47)	0	(0)
Total	71	217.16	(95.71)	77.20	(48.46)	41.32	(26.03)	0	(0)
Projected 20-Year Life Savings (\$ Millions)									
1982	26	1,590.42	(700.96)	381.70	(245.34)	174.95	(112.15)	0	(0)
1983	20	1,223.40	(539.20)	391.49	(242.64)	232.45	(145.58)	0	(0)
1984	15	917.55	(404.40)	385.37	(242.64)	211.04	(133.45)	0	(0)
1985	10	611.70	(269.60)	391.49	(242.64)	207.98	(129.41)	0	(0)
Total	71	4,343.07	(1,914.16)	1,550.05	(973.26)	826.42	(520.59)	0	(0)
Projected 20-Year Cost To Retain Inventory (\$ Millions)									
1982	26	0	(0)	1,937.47	(783.48)	2,268.88	(1,012.50)	2,549.30	(1,205.36)
1983	20	0	(0)	1,333.48	(509.96)	1,588.41	(676.86)	1,961.00	(927.20)
1984	15	0	(0)	853.04	(278.16)	1,132.48	(465.92)	1,470.75	(695.40)
1985	10	0	(0)	352.98	(46.36)	627.52	(241.07)	980.50	(463.60)
Total	71	0	(0)	4,476.97	(1,617.96)	5,617.29	(2,396.35)	6,961.55	(3,291.56)

\*Data without the parentheses represent the mean; data with parentheses represent the median.

\*Data without the parentheses represent the mean; data with parentheses represent the median.

### 3.3.2 Other Factors

From the discussion of Section 3.3.1 and from a purely economic standpoint, the choice of the appropriate course of action is a clear one, i.e., to fully fund the TMP. The choice is even clearer when other factors are considered. It has been recognized in numerous documents that the present inventory of TMDE is inadequate to support current and future weapon systems. These new systems require advanced state-of-the-art technology that does not exist in most of the fielded TMDE inventory; i.e., Standard A TMDE are for the most part technically obsolete. In addition to this technical inadequacy, the TMDE problem is further compounded by inherent obsolescence, which has created the need for more frequent repairs and increased difficulty in accomplishing these repairs due to lack of spare parts. Many repair parts are difficult to find and procure, because in most cases the manufacturers are no longer producing the ETE. Logistic support, in terms of maintenance, spare parts, and calibration, requires budgetary resources

far exceeding the limits of cost-effective operations. This condition is slowly being documented by the LCC economic analyses for each LR.

In a recent report, published in January 1980 by the Radio Technical Commission for Aeronautics (RTCA), a distinguished panel of experts in the ETE field addressed the issue of obsolescence by stating:

"The obsolescence of existing ETE can be determined by judging technological, economic, and readiness factors. Newer, more advanced systems may require higher measurement speeds, ranges, or accuracies than available on current ETE. Quite often new technology in the operating systems demands new ETE. Economic factors require the comparison of cost of ownership between existing and new ETE. Such tangible factors as maintenance costs, measurement capability, software requirements, or training time may be substantially lower for new ETE, especially if the old ETE is faced with a new-technology application. Cases have been documented where new item purchases have been amortized in one year or less, and five-year ownership costs cut as much as 50 percent.

"Operational readiness can be jeopardized by obsolescent ETE through higher failure rates or diminished availability. Comparative factors in determining obsolescence are (a) technology, (b) cost of ownership, and (c) operational readiness.

"ETE users have had difficulty in providing cost-effective logistics support for older ETE. Since there is usually a lack of funds for its replacement, older ETE that is no longer cost-effective to maintain and use tends to remain in the active inventory, creating unnecessary costs. Existing ETE may be deemed obsolescent if:

- (a) It does not economically meet new measurement requirements demanded by new technologies, and if it is not otherwise fully utilized.
- (b) A high cost of ownership results from maintenance, repair, training, software, or other operating costs which exceed corresponding costs for new ETE.
- (c) It cannot meet readiness requirements owing to diminished performance, reliability, or availability."

In addition to technical inadequacy and obsolescence, the current inventory of TMDE is plagued with proliferation. The difficulties in managing the swollen inventory present serious planning problems. Further, proliferation affects logistic support by requiring a greater range of spare parts, a larger number (by type) of technical publications, a wider variety of training programs for both operators and maintainers, and a larger number of hardware and software support packages.

To stop proliferation and improve the technical adequacy of the ETE inventory to meet advancing technological requirements, the systematic, orderly acquisition plan proposed by the TRADOC/DARCOM JWG and documented in the TPP should be fully supported and funded. A less than total commitment to the TMP would result in a serious loss in technological capability to meet existing and future requirements, considerable degradation in operational readiness and mission capability, and a waste of budgetary resources through the continuous support of obsolete, inefficient, and ineffective items of ETE.

If it is decided to support the TMP fully and make a maximum effort to program and budget the required funds for FY 1982 and beyond, a significant cost saving can be realized. In addition, technological leadership will be fostered through the acquisition of the latest state-of-the-art equipment, and combat readiness will be improved through a greater mission capability. The availability of modern OTS ETE will also make it unnecessary to rely on the weapon systems contractor for TMDE during operational and developmental testing and will significantly reduce the development of SP TMDE.

## CHAPTER FOUR

### CONCLUSIONS AND RECOMMENDATIONS

#### 4.1 CONCLUSIONS

ARINC Research Corporation reached the following conclusions from this project on the basis of the source documents listed in Appendix A and review and analysis of the draft LRs prepared by the DARCOM/TRADOC JWG:

- The use of groups of multipurpose GP TMDE in place of SP TMDE may result in a significant cost saving (or avoidance). Further study will be required to substantiate this conclusion.
- Five of the 76 LRs -- LRs 19, 37, 55, 68, and 70 -- may not be required. Either the TMDE families associated with these LRs have been merged with other families or the technical requirements have been deleted by a CERCOM/CORADCOM working group. (See ARINC Research Publications 1076-01-3-1770, July 1978, and 1574-01-1-2076, December 1979.)
- Most of the LR/specification combinations shown in Appendix E are compatible, indicating that the LR can be satisfied with an OTS ETE. Disparities between LR/specification combinations must be resolved to ensure the availability of OTS ETE to satisfy the LR. Further, OTS ETE specifications that will be more than one year old in the intended "FY Buy Year" should be reviewed, updated, and validated to determine their compatibility with the ETE state of the art.
- The replacement data in the LRs and the TCRL, which specified the M/M that will be replaced, are not compatible. The difference between these two source documents should be resolved so that it will be possible to identify the TMDE that will be replaced by an LR, the intended application of each item being replaced, and the number of replacement units required.
- The minimum number of M/M required to replace the U.S. Army GP TMDE inventory is 102. This number will increase if the "not required" LRs are added to the total and if each mainframe and plug-in combination required to satisfy an LR is nomenclatured separately. The 102 M/M have the potential for replacing 1,948 individual M/M of TMDE in the Army inventory.

- CERCOM should establish an OTS ETE technology base that will consist of data and trends applicable to the ETE industry. In addition, CERCOM should promote an open-door policy, act as an interface between the Army and the ETE industry, and continuously monitor TMDE requirements from the field and from new systems being developed.
- There are several existing OTS ETE specifications for which LRs have not been developed. These specifications should be reviewed and LRs should be developed as needed to further define the potential benefits of the TMP/TPP.
- The NDI acquisition process, which was used to develop the TPP, is applicable to OTS ETE and hence the TMP. Application of this process to the TMP should produce significant cost savings by eliminating the need for RDT&E funds and by compressing the overall acquisition cycle. However, the NDI acquisition process is different from that normally used by the Army to acquire materiel. It must therefore be studied and understood by members of commands participating in the TMP/TPP. Further, detailed policies and procedures must be developed to define the various roles of each participant and the means of carrying out their responsibilities.
- The TPP should be coordinated with all participating commands as soon as possible and put in final form. In addition, LRs within a given year should be arranged in priority sequence so that available resources can be focused accordingly.
- The TPP by FY provides sufficient guidance for implementing the TMP and determining initial resource requirements. It must, however, be refined further by LR priority in a given FY, and exact dates must be determined for the completion of required events and milestones.
- There were insufficient cost and replacement data for FY 1981, 1983, 1984, and 1985. The cost and replacement data for FY 1982 were therefore used as the baseline for projecting funding requirements and for determining the impact of various TMP funding levels on the Army. Table 4-1 depicts these data and shows that funding for the TMP is short by approximately \$290 million. This could result in a cost to the Government of approximately \$5,617.29 million to retain obsolete TMDE in the inventory over a 20-year period. Further, a fully funded program has a pay-back period of less than 2 years and a return of more than 11 dollars for every dollar invested. The following additional problems will be experienced by the Army if the TMP is not fully funded:
  - There will be continued proliferation of M/M and associated increases in logistics costs, e.g., training, spare parts inventory, and publications.
  - A full complement of state-of-the-art TMDE will not be available to support developmental and operational testing for new systems. This will make the program manager dependent on the end-item manufacturer for TMDE and will promote the development of SP TMDE, further complicating the Army's logistics system.



Table 4-1. TMP FY 1982-1985 FUNDING DATA* (IN MILLIONS OF DOLLARS)			
Actual Funds Required	TMP Funding Objective	TMP Programmed Level	No Funding for TMP
Projected Funding Level			
358.04 (273.95)	128 (128)	68.31 (68.3)	0 (0)
20-Year Life Savings			
4343.07 (1914.16)	1550.05 (973.26)	826.42 (520.59)	0 (0)
20-Year Cost to Retain Inventory			
0 (0)	4476.97 (1617.96)	5617.29 (2396.35)	6961.55 (3291.56)
*Funding data (i.e., Actual Funding Level, 20-Year Life Savings, and 20-Year Cost to Retain Inventory are extrapolated to 71 LRs on the basis of currently available cost data on 16 of these LRs. The "No TMP Funding" column indicates an assumption that no funds are provided. Data in parentheses represent the median; data without parentheses represent the mean.			

- A serious loss in technology capability will be experienced, and this will affect materiel readiness and the ability of the Army to respond to changing requirements.

#### 4.2 RECOMMENDATIONS

On the basis of the foregoing conclusions, ARINC Research Corporation offers the following recommendations:

- CERCOM should continue exploring the potential cost savings that could be realized through the replacement of SP TMDE with GP TMDE.
- The DARCOM/TRADOC JWG should further evaluate the 5 LRs identified as not being required.
- Inconsistencies in replacement data between the LRs and the TCRL should be resolved so that requirements for OTS ETE can be more accurately defined.
- CERCOM should establish an open-door policy with the ETE industry and develop procedures for merging ETE innovations with Army TMDE requirements.
- Out-of-date OTS ETE specifications should be reviewed, upgraded, and validated on a scheduled basis or in accordance with the priorities established by requirements documents.

- The DARCOM/TRADOC JWG should review the identified GP TMDE families that do not have LRs and determine the need for such a document.
- The TPP should be coordinated and implemented. In addition, efforts should be made to create an awareness of the NDI acquisition strategy and to develop policies and procedures needed for completion of specific events and milestones of that strategy.
- LCC economic analyses should be completed for each LR as soon as possible so that cost and replacement data applicable to the TMP can be further defined.
- The benefits of the TMP should be reported to DARCOM, TRADOC, DA, and DoD. This can be accomplished through a series of briefings to key personnel outlining the TMP/TPP, the resources required, the potential cost savings, and the expected improvement in materiel readiness.

## APPENDIX A

### SOURCE DOCUMENTS

The documents used in the OTS ETE analysis are listed in this appendix in three parts:

- Part I - ARINC Research Corporation Publications
- Part II - Unofficial Documents
- Part III - Official Documents

#### Part I - ARINC Research Corporation Publications

<u>Title</u>	<u>Contract</u>	<u>Date</u>	<u>Publication Number</u>
Phase I Final Report - Economic Analysis of Selected TMDE from the USACC PIL	DAEA 18-72-A-0005 Delivery Order 0006	August 1974	1072-01-1-1316
Phase II Final Report - Economic Analysis of Selected TMDE from the USACC PIL	DAEA 18-72-A-0005 Delivery Order 0006	November 1974	1072-01-2-1333
Phase III Final Report - Economic Analysis of Selected TMDE from the USACC PIL	DAEA 18-72-A-0005 Delivery Order 0006	May 1975	1072-02-4-1405 (Volume I) 1072-02-3-1403 (Volume II)
Engineering Review of Field Assets to Iden- tify Families of TMDE, Task 1	DAEA 18-72-A-0005 Delivery Order 0007	July 1976	1073-01-1-1504
Determination of an Analysis Sequence for the TMDE Families, Task 2	DAEA 18-72-A-0005 Delivery Order 0007	August 1976	1073-01-2-1517
Determination of the Set of Characteristics of TMDE Families (Groups A through E), Task 3	DAEA 18-72-A-0005 Delivery Order 0007	September 1976	1073-01-3-1534 4-1540, 5-1549 8-1559, and 9-1567

Part I (continued)

<u>Title</u>	<u>Contract</u>	<u>Date</u>	<u>Publication Number</u>
Determination of Best Mix, Technological Forecast, and Availability of Existing TMDE Families (Groups A through E), Tasks 4 and 5	DAEA 18-72-A-0005 Delivery Order 0007	November 1976	1073-01-6-1554R, 7-1553, 10-1568, 12-1573, and 15-1604
TMDE Family Specifications	DAEA 18-72-A-0005 Delivery Order 0007	January 1977	1073-01-11-1571, 13-1583, 16-1611, 17-1625, and 18-1629
Engineering Analysis and Determination of U.S. Army TMDE Requirements (Final Summary Report)	DAEA 18-72-A-0005 Delivery Order 0007	July 1977	1073-01-19-1633
Establish Project Data Base Structure for the Definitization of Specifications for Families of OTS ETE, Task 1	DAEA 18-72-A-0005 Delivery Order BG-02	December 1977	1076-01-1-1693
Review and Analysis of Technical Characteristics for the Definitization, Subtask 2B	DAEA 18-72-A-0005 Delivery Order BG-02	March 1978	1076-01-2-1720
Definitize and Prepare OTS ETE Specifications	DAEA 18-72-A-0005 Delivery Order BG-02	July 1978	1076-01-3-1770
Determination of a Life-Cycle-Cost Procurement Approach in the Selection of OTS ETE	DAEA 18-72-A-0005 Delivery Order 0011	April 1978	1078-02-1-1730
Validation of the CERCOM Life-Cycle-Cost Model	DAAB07-78-A-6606/06	November 1979	1584-01-TR-2091
Definitize Specifications for Families of Off-the-Shelf Electronic Test Equipment	DAAB07-78-A-6606/ 0001	December 1979	1574-01-1-2076

Part I (continued)

<u>Title</u>	<u>Contract</u>	<u>Date</u>	<u>Publication Number</u>
Fourteen (14) Military (OTS ETE) Specifications	DAAB07-78-A-6606/ 0001	December 1979	1574-01-1-2077 to 2090
Determine the Feasi- bility of Replacing Special Purpose TMDE With Off-the-Shelf Electronic Test Equipment	DAAB07-78-A-6606/03	April 1980	1581-01-1-2173 Volumes I and II
Life-Cycle-Cost Analysis of Selected TMDE Families	DAAB07-78-A-6606/06	February 1980	1584-01-1 to 25-2128
Optimize the Quantity and Types of TMDE Required to Support U.S.A. Electronic Systems at the General Support Level	DAAB07-78-A-6606/02	November 1980	To Be Determined

Part II - Unofficial Documents

- APRO 803 - Acquisition Strategies for Nondevelopmental Items (NDIs), May 1979
- Commercial by Design - Proceedings of the Workshop on Commercial Commodity Acquisition, January 17-19, 1978
- Draft AR 70-1, 14 December 1978
- DARCOM Letter of Instruction, Communications and Electronics Materiel Readiness Command (CERCOM), 23 December 1977
- DARCOM Letter of Instruction, Electronics Research and Development Command (ERADCOM), 23 December 1977
- CERCOM Regulation: Equipment Transition Processing, Coordination and Approval, June 1979
- Memorandum of Agreement: Uniform System for Materiel Acquisition Management (Project Control Board) between AVRADCOM, CERCOM, CORADCOM, and ERADCOM, 11 March 1979
- Memorandum of Agreement: General Purpose TMDE, between DARCOM and TRADOC, 27 December 1976
- Master Plan for Modernization of Manual Electronic TMDE, prepared by USASCH&FG, 3 March 1980
- Recommendations on Policies and Procedures for OTS ETE Acquisition and Support, Document NQ RTCA/DO-171, January 1980

Part III - Official Documents

• Army Pamphlets

DAPAM 11-25	May 1975
DAPAM 700-127	April 1979

• Army Regulations

AR 70-1	1 May 1975
AR 71-2	19 April 1976
AR 71-3	8 March 1977
AR 71-6	13 July 1973
AR 310-3	26 August 1977
AR 700-127	11 April 1975
AR 750-1	1 April 1978
AR 750-43	22 September 1976

• DARCOM Supplements

Supplement 1 to AR 700-127	20 June 1977
Supplement 1 to AR 750-43	18 February 1976

• DARCOM Circular

DARCOM-C 20-3	21 August 1979
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• DARCOM Regulation

DARCOM-R 700-34	15 June 1978
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• CERCOM Supplements

Supplement 1 to AR 750-43	8 October 1976
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• CERCOM Regulation

CERCOM-R 10-1	19 June 1978
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• Supply Bulletin

SB 700-20	January 1979
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## APPENDIX B

### DESCRIPTION OF TMDE CROSS-REFERENCE LIST (TCRL)

The TMDE Cross-Reference List (TCRL) is intended as a guide for initially identifying those OTS ETE specifications which are "functionally compatible" or "partially compatible" with U.S. Army GP TMDE inventory. Under earlier contracts, ARINC Research Corporation compared the technical parameters for each item, as described in the DA TMDE Register, with the technical parameters of the OTS ETE specifications or LR developed by DARCOM/TRADOC JWG (considered a specification) and determined whether the TMDE parameters were "functionally compatible" or "partially compatible" with a particular specification. Applicable data were then encoded. The two types of compatibility are described as follows:

- "Functionally compatible" implies that the technical parameters of the TMDE are within the range of the technical parameters of the identified OTS ETE specification.
- "Partially compatible" implies that the technical parameters of the TMDE are only partially within the range of the technical parameters of the identified OTS ETE specification(s) and that more than one specification is required to provide full compatibility.

The analysis and subsequent encoding resulted in the following listings for a two-part TCRL:

- Part I - OTS ETE Specification to U.S. Army General Purpose TMDE. Part I is an alphabetical listing of OTS ETE specifications correlated with the U.S. Army GP TMDE inventory that are either functionally compatible or partially compatible with each specification.
- Part II - U.S. Army General Purpose TMDE to OTS ETE Specifications. Part II is an alphanumeric listing, by type designator or manufacturer's model number, of each U.S. Army GP TMDE considered in the analysis; it indicates by OTS ETE specification number(s) whether the TMDE is functionally or partially compatible.

The data displayed in the TCRL should be considered as representative of the potential of each OTS ETE specification for replacing GP TMDE in the Army. It is intended to serve as the starting point for estimating cost savings that can be realized from the TMP.

The original TCRL was upgraded in July 1978 and December 1979 for 7 and 18 TMDE families, respectively. GP TMDE added to the DA TMDE Register since July 1976, as listed in the April 1979 Register, were included in the TCRL as part of the SP TMDE study described in Section 2.1.3 of this report. However, the DA TMDE Register does not include all TMDE being used by the Army. The U.S. Army Central TMDE Activity (CTA) continues to identify TMDE that has not been incorporated into the register as required by AR 750-43. On the basis of the data ARINC Research Corporation has accumulated in support of the TMP, it can be reasonably estimated that there are approximately 1,000 separate M/M of Army TMDE not listed in the register. The TCRL must be considered in that light.

ARINC Research Corporation believes that the data in the TCRL are reasonably accurate. However, the TCRL is not intended to be a vehicle for "final" Army decisions. It is a starting point for determining which TMDE can be "functionally" or "partially" replaced by the acquisition of a new TMDE that conforms to the OTS ETE specification shown. In fact, it may not be desirable or possible to replace the item. Therefore, before a final decision to replace an item is made, a detailed analysis of that item is required. The TCRL could be upgraded by performing a detailed analysis of each TMDE listed and incorporating the results in the TCRL, i.e., reviewing each individual end system and TMDE technical manuals; however, we believe that this would only marginally improve the usefulness of the document. Further, as part of the acquisition process for each new TMDE, the data in the TCRL would have to be verified against the actual specification used in the solicitation to provide assurance to all concerned that the items designated for replacement should in fact be replaced. Finally, the TMDE state of the art at the time of acquisition might dictate the consolidation of families of TMDE. For example, the Sweep Generator Audio might be combined with the Generator, Signal Function. Therefore, ARINC Research Corporation does not consider it advisable to conclude the acquisition process for a new TMDE without first performing a detailed analysis and verification of the TMDE to be replaced.



## APPENDIX C

### TMDE CROSS-REFERENCE LIST

This appendix contains the TMDE Cross-REFERENCE LIST (TCRL); it is divided into two parts:

- Part I - TCRL, OTS ETE Specification to U.S. Army General Purpose TMDE (starting on page C-3)
- Part II - TCRL, U.S. Army General Purpose TMDE to OTS ETE Specification(s) (starting on page C-67)

PART I

TCRL, OTS ETE SPECIFICATION TO  
U.S. ARMY GENERAL PURPOSE TMDE

07/01/80

PART I CROSS-REFERENCE LIST  
GENERAL PURPOSE TMRD OTS ETE SPECIFICATIONS

SPEC NO	TYPE	DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NUMENCLATURE	FAMILY CODE	GP LTR	ID NO.
23	FUNCTIONALLY COMPATIBLE							
	MF40BU	420R		28480	AMMETER	002	B	2019
	ME65AU	196645		65092	AMMETER	001	B	0669
	ME65U	131173		28569	AMMETER	001	B	3729
		AX		13648	AMMETER AC/DC TONG PICKUP	002	B	1977
		P45		89315	AMMETER AC	001	B	1997
		P3		29834	AMMETER AC	001	B	1995
		1M546		94990	T S RADIO	032	B	2429
		155		65092	AMMETER AC	001	B	2046
		373		55026	MILLIAMMETER	001	B	3709
		433A		65092	AMMETER AC	001	B	1951
		433B		65092	AMMETER AC	001	B	1953
		4372906005		65092	AMMETER AC	001	M	4547
	PARTIALLY COMPATIBLE							
	ANUSM262	560T01012		33441	AMMETER	001	B	0495
	ANUSM33			65092	MULTITESTER	002	B	0414
	ME221U	253983		65092	AMMETER AC VOLTS	001	B	0684
		AC1		13648	AMMETER AC VOLTS	001	M	4059
		AK4		03927	MULTIMETER ELEC SPLIT CORE TYPE	002	B	3688
		AK4		24446	MULTIMETER	002	B	3689
		MS1A		00426	TESTER CKT BREAKER	001	B	1993
		RS3		15566	MULTIMETER	032	B	1303
		RS3A		15566	MULTIMETER	032	B	1304
		RS300		15566	METER AC VOLT AMMETER	001	B	1305
		310C		60741	MULTIMETER	032	B	1343
		370		65092	AMMETER AC/DC	001	M	4546
		428A		28480	MILLIAMMETER	001	B	2018
		633		65092	AMMETER	002	B	1961
		9042905002		65092	AMMETER AC	001	M	4548
47	FUNCTIONALLY COMPATIBLE							
	152677FM	22821		50040	SOUND MEASURING SET	004	E	1208
	PARTIALLY COMPATIBLE							
	ANUSH10	651A		80138	ANALYZER SET VIBRATION	004	E	0410
		1139		07387	WATTMETER ULTRASONIC	004	M	4128
		1551C		24655	METERS LEVEL	004	E	2569
		19339714		24655	ANALYSIS SOUND SYSTEM	004	E	1723

## PART I CROSS-REFERENCE LIST

07/01/80

## GENERAL PURPOSE INDE DTS EYE SPECIFICATIONS

SPECIFICATION NAME	SPEC. NO.	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NUMERICAL	FAMILY GP CODE	LTR	ID NO.
AUDIO OSCILLATOR	01	FUNCTIONALLY COMPATIBLE						
ANURM127				51865	GENERATOR SIGNAL	006	A	0392
ANUSM253			1218BV	24655	GENERATOR SIGNAL	006	A	0488
ANUSM269			1310A	24655	GENERATOR SIGNAL	006	A	0498
0450U			200ABR	24480	OSCILLATOR AUDIO	006	A	3720
0450U			1302A	24655	OSCILLATOR	006	A	1831
SG1023U			209A	24480	OSCILLATOR	006	A	0893
SG1128U			654A	24480	TEST OSCILLATOR	006	A	1868
SG15PCN			5490	24655	GENERATOR SIGNAL	006	A	0824
SG42URH18			1107A	24655	GENERATOR SIGNAL	006	A	0826
SG510U			201C	24480	OSCILLATOR AF	006	A	0857
SG543AU			204RH07	24480	GENERATOR SIGNAL	006	A	0859
SG578U			650A	24480	TEST OSCILLATOR	006	A	0862
SG590U			202CR	24480	GENERATOR SIGNAL	006	A	3346
SG621U			202C	24480	GENERATOR SIGNAL	006	A	0864
SG632AU			204B	24480	GENERATOR SIGNAL	006	A	0866
SG632BU			204B02	24480	GENERATOR SIGNAL	006	A	0867
SG632U			204B01	24480	GENERATOR SIGNAL	006	A	0865
SG71AFCC			233A	24480	GENERATOR SIGNAL	006	A	0833
SG71HFCC			233A	24480	GENERATOR SIGNAL	006	A	0834
SG71CFCC			190	67116	GENERATOR SIGNAL	006	A	0835
SG71FCC			233A	24480	GENERATOR SIGNAL	006	A	0832
SG763AU			652AH02	24480	GENERATOR SIGNAL	006	A	0874
SG763U			652A	24480	GENERATOR SIGNAL	006	A	0873
SG770U			241A	24480	OSCILLATOR PUSHBUTTON	006	A	0876
SG837U			1210C	24655	OSCILLATOR	106	A	1655
SG981U			FTS39A4	06819	GENERATOR TONE	006	A	0888
SG984U			651B002	24480	GENERATOR SIGNAL	006	A	0889
TS312AFSM1			200COR	24480	GENERATOR SIGNAL	006	A	0995
TS312BFSM1			20200	01486	GENERATOR SIGNAL	006	A	0996
TS312FSM1			200CR	24480	GENERATOR SIGNAL	006	A	0997
TS3329U			236A	24480	T 5 TELEPHONE	006	A	1241
TS3401TSC388			5770871	49956	T 5 VOICE FREQUENCY TONE GENERATOR	006	A	1242
TS382AU			200C	99872	GENERATOR SIGNAL	006	A	1002
TS382BU					GENERATOR SIGNAL	006	A	1003
TS382CU				99872	GENERATOR SIGNAL	006	A	1004
TS382DU				78796	GENERATOR SIGNAL	006	A	1005
TS382EU				82076	GENERATOR SIGNAL	006	A	1006
TS382FU					GENERATOR SIGNAL	006	N	4090
TS382U			200C	24480	GENERATOR SIGNAL	006	A	1001
TS421AU			205AGH02	24480	GENERATOR SIGNAL	006	A	1017
TS421BU			2975H	28569	GENERATOR SIGNAL	006	A	1018
TS421CU			F370A	29805	GENERATOR SIGNAL	006	A	1019
TS421U			205AG	24480	GENERATOR SIGNAL	006	A	1016
			CV0100PH	65092	OSCILLATOR PRECISION	006	A	3264
			1022C	R0009	OSCILLATOR BEAT FREQUENCY	006	A	1653
			1210B	24655	OSCILLATOR	006	A	1828

# PART 1 CROSS-REFERENCE LIST

07/01/80

## GENERAL PURPOSE INDF OTS FTE SPECIFICATIONS

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
01	FUNCTIONALLY COMPATIBLE						
		1307A	24655	OSCILLATOR AF	006	A	1832
		1311A	24655	OSCILLATOR AUDIO	006	A	2563
		200A	28480	AUDIO OSCILLATOR	006	A	1633
		200C0	28480	OSCILLATOR AUDIO	006	A	3343
		200J	28480	OSCILLATOR AF	006	A	1898
		201CR40	28480	OSCILLATOR AUDIO	006	A	1634
		208A	28480	OSCILLATOR ELECTRONIC	006	A	1637
		4204A	28480	OSCILLATOR DIGITAL	006	A	1845
		651A	28480	TEST SET OSCILLATOR	006	A	1647
		651R	28480	OSCILLATOR TEST	006	A	1847

## PARTIALLY COMPATIBLE

ANGPM50	606A	28480	GENERATOR SIGNAL	051	A	0174
ANGRM50A	11507A	28480	GENERATOR SIGNAL	051	A	0175
ANGPM50B	606AC15	28480	GENERATOR SIGNAL	051	A	0176
ANGRM50C	921A	33013	GENERATOR SIGNAL	051	A	0177
ANUPM25B0	315	21900	GENERATOR SIGNAL	051	A	0341
ANURM25F	1620003	9242R	GENERATOR SIGNAL	051	A	0342
ANURM25H	152261	66150	GENERATOR SIGNAL	051	A	0343
ANUPM25J		26648	GENERATOR SIGNAL	051	A	0344
ANURM93	245A	04901	VOLTAGE STANDARD RADIO FREQ	051	A	0377
ANURM93A	245D	04901	VOLTAGE STANDARD RADIO FREQ	051	A	0378
ANUSM205	650A	28480	GENERATOR SIGNAL	006	A	0469
ANUSM205A	62051	25778	GENERATOR SIGNAL	006	A	0470
ANUSM212	7580047001	13499	GENERATOR SIGNAL	051	A	0476
ANUSM272	191	80009	GENERATOR SIGNAL	051	A	0501
SG20U	65R	14140	SIGNAL GENERATOR	051	A	0825
SG121AU		80063	GENERATOR SIGNAL	047	A	0845
SG121RU		24635	GENERATOR SIGNAL	047	A	0846
SG321U	5533	83563	GENERATOR SIGNAL	047	A	0844
SG479GRM50	606A	28480	GENERATOR SIGNAL	051	A	0856
SG511U	606A	28480	GENERATOR SIGNAL HF	051	A	0858
SG267U	204C	28480	OSCILLATOR AUDIO	006	A	1636
TS420AU	76C	64959	T S TELEPHONE	006	A	1014
TS420RU	76A	64959	T S TELEPHONE	006	A	1015
TS420U	76A	64959	T S TELEPHONE	006	A	1013
	F53A	07421	GENERATOR SIGNAL	006	A	1599
	1310R	24655	OSCILLATOR	006	A	1656
	134A	21461	OSCILLATOR AUDIO RF	047	A	3341
	190A	80009	GENERATOR SIGNAL	051	A	1632
	190R	80009	GENERATOR SINE WAVE	051	A	1847
	202R	28480	CONVERTER FREQ	051	A	1769
	5110R	28480	SYNTHESIZER DRIVER	051	A	1847
	606R	28480	GENERATOR SIGNAL	051	A	1643
	737AR	28480	T S FREQ RESPONSE	051	A	1871

07/01/80

PART I CROSS-REFERENCE LIST

GENERAL PURPOSE IND-OTS PTE SPECIFICATIONS

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
AUDIO OSCILLATOR	01	PARTIALLY COMPATIBLE						
			86608		28480 SYNTHESIZED SIGNAL GENERATOR	107	A	2073
			86601A		28480 RF SECTION	051	A	2089
			8709A		28480 GENERATOR SIGNAL P I SYNCHRONIZER	106	A	2081
AUDIO SYSTEM TEST SET	71	FUNCTIONALLY COMPATIBLE						
			10851U	203351	49675 INDICATOR ASSY FLUTTER	112	D	0585
			ME254AU	FL301	83003 METER FLUTTER AND WDM	112	D	0690
			ME254U	590AL	73446 METER FLUTTER AND WDM	112	D	0689
				8100AM	12578 T S SOUND RECORDING	112	D	2325
BRIDGE, UNIVERSAL	25	FUNCTIONALLY COMPATIBLE						
			ME356U	0P182B	14140 METER AUDIO LEVEL	005	D	0702
			152854ASH23	09636900601A	22915 T S RECORDER	112	D	1212
			ANUM90	40207046	83777 T S CAPACITANCE INDUCTANCE RESISTANCE	008	B	0375
			ANUSH263	300	11837 BRIDGE VOLTAGE RESISTANCE	008	B	0496
			ME128U	CD83	93790 CAPACITANCE	011	N	0912
			ZH11AU		BRIDGE CAPACITANCE INDUCTANCE RESIS	008	B	1277
			ZH110U	717	12019 BRIDGE CAPACITANCE INDUCTANCE RESIS	008	B	1278
			ZH11U		13259 BRIDGE CAPACITANCE INDUCTANCE RESIS	008	B	1276
			ZH1AU		77569 ANALYZER CAPACITOR	011	B	1272
			ZH1U		54294 T S CAPACITOR	011	B	1271
			ZH4AU	3015L	66150 BRIDGE RESISTANCE	008	B	1274
			ZH4U	6100	66150 BRIDGE RESISTANCE	008	B	1275
			ZH4U	5300	31922 BRIDGE RESISTANCE	008	B	1273
			ZH61U	250B	28480 BRIDGE CAPACITANCE INDUCTANCE RESIS	008	B	1284
			ZH6AU	DS45C4R	88869 BRIDGE IMPEDANCE	008	B	1285
			ZH6U	16509701	24655 BRIDGE IMPEDANCE	008	B	3630
			ZH70U	2500E	11837 BRIDGE CAPACITANCE INDUCTANCE RESIS	008	B	1286
			ZH7U	4240A	28480 BRIDGE IMPEDANCE	008	B	1287
			DP170	EL000	28569 BRIDGE RESISTANCE DIGITAL	008	B	1980
			EL000	EL000	07230 MICATSTONE BRIDGE	008	N	4052
			EL002	EL002	07239 BRIDGE IMPEDANCE	008	B	3267
			E3108	E3108	07239 BRIDGE RESISTANCE	008	B	1795
			M3	M3	56209 T S CAPACITOR COMPACT	011	B	1300
			SP2240	SP2240	11837 IMPEDANCE MEASURING SYSTEM	022	B	3292
			01R2	01R2	19482 IMPEDANCE BRIDGE HIGH FREQ	008	B	1562
			1611A	1611A	24655 BRIDGE CAPACITANCE	008	B	1385
			1615AM	1615AM	24655 CAPACITANCE BRIDGE	011	B	2570
			1620A	1620A	24655 CAPACITANCE MEASUREMENT SYSTEM	011	B	2571
			1632	1632	24655 BRIDGE INDUCTANCE	008	B	2572
			1650R	1650R	24655 BRIDGE IMPEDANCE	008	B	1475

# PART 1 CROSS-REFERENCE LIST

07/01/80

## GENERAL PURPOSE TMD/OTS ETC SPECIFICATIONS

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	REF. MODEL NO.	REF. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
BRIDGE, UNIVERSAL	25	FUNCTIONALLY COMPATIBLE						
		2700		09553	BRIDGE UNIVERSAL IMPEDANCE	008	B	1487
		2904MOD		11837	IMPEDANCE BRIDGE	008	B	3350
		315A		11837	BRIDGE IMPEDANCE	008	B	3592
		5430A		31922	BRIDGE RESISTANCE	008	B	1949
		7040		79409	TESTER IMPEDANCE GROUNDLOOP	022	D	1420
		716C		24655	BRIDGE CAPACITANCE	011	B	1367
		75D		04901	BRIDGE CAPACITANCE	008	N	5177

### PARTIALLY COMPATIBLE

	9F60	93790	TESTER CAPACITOR RESISTOR	011	B	1289
	E3067	07239	POTENTIOMETER	008	B	1982
	2R2A	80740	BRIDGE IMPEDANCE	011	B	1314
	10375	35529	BRIDGE RESISTANCE	008	B	2051
	1050	28009	WHEATSTONE BRIDGE	008	B	1926
	1080	28009	WHEATSTONE BRIDGE HIGH PRECISION	008	B	1379
	1212A	24655	DETECTOR NULL	008	B	1214
	2318	11837	WHEATSTONE BRIDGE	008	B	1333
	250A	04901	METER RX	022	B	1334
	381A	55026	TESTER CAPACITOR	008	N	4571
	4271	31922	BRIDGE RESISTANCE	008	B	1405
	4285	31922	BRIDGE RESISTANCE	008	B	1748
	5305	31922	WHEATSTONE BRIDGE	008	B	1414

### CABLE TEST SET (TDR)

	ANUSM437V1	150304	80009	T S ELECTRICAL CABLE	009	N	4839
	SG1094U	552	80009	PULSE GENERATOR HEAD	009		0896
	T01160PU	7512	80009	TDR SAMPLER	009	N	3581
		0C1001PL	82389	TESTER CABLE CONTINUITY PORTABLE	009		4841
		152	80009	OSCILLOSCOPE PLUG IN TDR	009		1619
		1415A	28480	REFLECTOMETER TIME DOMAIN PLUG IN	009		1658
		1501323	80009	REFLECTOMETER TIME-DOMAIN	009	E	1381
		1502	80009	TIME-DOMAIN REFLECTOMETER	009	E	1382
		1503	80009	CABLE TESTER TDR	009	N	4790
		1815A	24480	TDR/SAMPLER	009		1664
		317	80009	PLUG IN TDR SWEEP	009		1622
		4904A	28480	CABLE FAULT LOCATOR	009	N	4840
		4910A	28480	LOCATOR OPEN FAULT	009	N	4557

### PARTIALLY COMPATIBLE

	TS3187U	4901A	28480	LOCATOR CABLE FAULT	009	E	1228
	TS1406V1U	4910F	28480	OPEN FAULT LOCATOR	009	E	1412
		1580A	28480	SAMPLER NARROW BAND TDR	009	E	1383
		4910B	28480	LOCATOR OPEN FAULT	009	F	1411

### GENERAL PURPOSE TMDT EYE SPECIFICATIONS

SPFC NO	SPECIFICATION NAME	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
88	CABLE TEST SET (TDR)	PARTIALLY COMPATIBLE						
			4913A	28480	TEST DESK FAULT LOCATOR	009	N	4558
42	CALORIMETER	FUNCTIONALLY COMPATIBLE						
		AMUSH83	MC18	94987	WATTMETER CALORIMETRIC	010	C	0433
			V4030148	99313	CALORIMETER	010	N	4129
			434A	28480	CALORIMETER OIL TYPE 10 WATTS	010	C	1731
		PARTIALLY COMPATIBLE						
			TLCC100K	91161	WATTMETER CALORIMETRIC	010	C	1796
71	DAIL EQUIPMENT TEST SET	FUNCTIONALLY COMPATIBLE						
		ANTSMB6	9002660000	83744	SIGNALING TEST SET	122	D	2386
		ANTSMB6A	9002660000	83744	TELEPHONE T S	122	D	0287
		TS3176USM373	T1526H	06819	T S PULSE SIGNALING	122	D	1226
		TS3629U	7078	27364	QUICK CHECK TEST SET	122	D	2385
			11B	14100	T S CKT PLATE MAINTENANCE	122	D	2368
			12B	78957	T S PULSE SPEED AND PERCENT MAKE	122	D	2370
		PARTIALLY COMPATIBLE						
					T S TELEPHONE	032	B	0957
		TS27ATSM	713003	00798	T S TELEPHONE	032	B	0958
		TS27BTSM	ET527B	64959	T S TELEPHONE	032	B	0956
		TS27TSM	0166237	95104	T S TELEPHONE	071	D	1223
		TS3157U	TTS4ANHRV	64959	T S TELEPHONE	122	B	1227
		TS3178U	J9400202D	27634	T S TELEPHONE EQUIPMENT	122	N	4915
			CMC714XY	94156	T S SWITCHING EQUIPMENT	122	N	4913
			J98705U	50137	T S 5U SERVING UNIT	122	N	4913
			TT11110A	06819	T S TELEPHONE	071	D	2364
			TT54RHH	06819	TELEPHONE TEST SET	071	D	2362
			13B	14100	T S PULSING LIMITS	122	D	2371
			25	04773	SIGNAL TEST SET	122	D	2372
72	DATA ERROR TEST SET	FUNCTIONALLY COMPATIBLE						
		ANGCM4	DAC5	64959	T S TELEPHONE	013	D	3542
		TS3478U	1200	50572	T S MUDCM	013	D	2390
		TS3641U	7002	91417	COUNTER ERROR RATE	013	N	4657
			1645A	28480	ANALYZER DATA ERROR	013	D	1662
			3780A	28480	BIT ERROR RATE TESTER	013	N	4661
			7003	91417	ANALYZER ERROR BIT	013	D	1682
			901	51277	TESTER BIT ERROR RATE	013	D	2387



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GENERAL PURPOSE IMDR UTS ETC SPECIFICATIONS

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
DISTORTION ANALYZER	74	FUNCTIONALLY COMPATIBLE						
		ANURM180	333A	28480	INDICATOR DISTORTION	014	D	0403
		ANURM184	334AC10001	28480	DISTORTION ANALYZER	014	D	0406
		ANURM184A	334AO1C10	28480	ANALYZER DISTORTION	014	D	0407
		ANUSM259	331A	28480	ANALYZER DISTORTION	014	D	0492
		ME153U	1932A	24655	INDICATOR DISTORTION	014	D	0678
		ME336URM	332A	28480	INDICATOR DISTORTION	014	D	0698
		TS2394G	332A	28480	ANALYZER DISTORTION	014	D	1194
		TS723AU	330B	28480	ANALYZER SPECTRUM	014	D	1093
		TS723BU	36A	14140	ANALYZER SPECTRUM	014	D	1094
		TS723CU	10000	99395	ANALYZER SPECTRUM	014	D	1095
		TS723DU	10000	99395	ANALYZER SPECTRUM	014	D	1096
		TS723U	330B	28480	ANALYZER SPECTRUM	014	D	1092
			334A	28480	ANALYZER DISTORTION	014	D	3359
			6100B	12578	T S TAPE RECORDER ANALYZER	014	N	4921
PARTIALLY COMPATIBLE								
			VZM3	04598	SET DISTORTION MEASURING	014	D	1616
ENVELOPE DELAY TEST SET	75	FUNCTIONALLY COMPATIBLE						
		TS2395AG	340A	94668	ENVELOPE DELAY T S	016	D	1196
		TS2395G	340B	94668	ENVELOPE DELAY T S	016	D	1195
		TS2669AGCM	490B	03860	MEASURING SET ENVELOPE DELAY DISTOR	016	D	1207
		TS2669GCM	490A	03860	MEASURING SET ENVELOPE DELAY DISTOR	016	D	1206
FIELD STRENGTH METER A	43	FUNCTIONALLY COMPATIBLE						
		ME61GRC9		80063	METER FIELD STRENGTH	043	C	0668
			NH1727	88869	METER EMI FIELD INTENSITY	043	C	1782
			NH26T	88869	ELECTROMAGNETIC NOISE METER	043	C	1783
			NH7	88869	METER EMI FIELD INTENSITY	043	N	4888
PARTIALLY COMPATIBLE								
		ANURM178	ENC25R	18581	RADIO INTERFERENCE MEASURING SET	043	C	0402
		ANURM47A		88869	RADIO INTERFERENCE MEASURING SET	043	C	0352
		ANURM47B	NH30A	88869	RADIO INTERFERENCE MEASURING SET	043	C	0353
		ANURM47C	218	06053	RADIO INTERFERENCE MEASURING SET	043	C	0354
		ANURM501	NF105	16665	MEASURING SET RADIO INTERFERENCE	043	C	3724
		ANURM85		16665	RADIO INTERFERENCE MEASURING SET	043	C	0371
		ANURM85A		16665	RADIO INTERFERENCE MEASURING SET	043	C	0372
		ANURM91	IM275	30040	METER FIELD STRENGTH	043	C	0376
			59	14140	METER GRID DIP	020	C	1763

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## GENERAL PURPOSE TME DTG ETC SPECIFICATIONS

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	UP LTR	ID NO.
44	FUNCTIONALLY COMPATIBLE						
		MM3757		88869 METER EMI FIELD INTENSITY	043	C	1784
		5024		20905 T S STABILITY	020	C	2104
	PARTIALLY COMPATIBLE						
		ANURM178		18581 RADIO INTERFERENCE MEASURING SET	043	C	0402
		ANURM17A	ENC25R	88869 RADIO INTERFERENCE MEASURING SET	043	C	0352
		ANURM17B	MM30A	88869 RADIO INTERFERENCE MEASURING SET	043	C	0353
		ANURM17C	21A	06053 RADIO INTERFERENCE MEASURING SET	043	C	0354
		ANURM501	NF105	16665 MEASURING SET RADIO INTERFERENCE	043	C	3724
		ANURM85		16665 RADIO INTERFERENCE MEASURING SET	043	C	0372
		ANURM85A	TM275	16665 RADIO INTERFERENCE MEASURING SET	043	C	0372
		ANURM91	59	30040 METER FIELD STRENGTH	043	C	0376
				14140 METER GRID DIP	020	C	1763
45	FUNCTIONALLY COMPATIBLE						
		ANUSM227	NF157	03782 MEASURING SET POWER DENSITY	043	C	0484
	PARTIALLY COMPATIBLE						
46	FUNCTIONALLY COMPATIBLE						
		EM910		88869 METER RADIO INTERFER AND FIELD INTE	043	C	2352
	PARTIALLY COMPATIBLE						
		CFM		82199 TUNING UNIT PLUG-IN	043	N	4133
		EM910		88869 METER RADIO INTERFER AND FIELD INTE	043	C	2352
		FCB		82199 MICROWAVE FIELD INTENSITY METER	043	N	4132
	PARTIALLY COMPATIBLE						
		ANUSM227	NF157	03782 MEASURING SET POWER DENSITY	043	C	0484
59	FUNCTIONALLY COMPATIBLE						
		CV234URM	25908	28480 CONVERTER FREQUENCY	125		3727
			2590A	28480 CONVERTER FREQ ELEC	125		2102
			5256A	28480 FREQ CONVERTER	125		2231
58	FUNCTIONALLY COMPATIBLE						
		CM77AUSM	540R	28480 COMPARTOR FREQ	019		0547
		CM77USM		28480 COMPARTOR FREQUENCY	019		4938
		CP1100U	5100R5110R	28480 COUNTER ELEC DIGITAL	051		0550
		CP772AU	5245L	28480 COUNTER FLEC	019		0548
		CV2001AU	5254R	28480 CONVERTER FREQ ELEC	019		0556

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## GENERAL PURPOSE TIME DTS EYE SPECIFICATIONS

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
FREQUENCY COUNTERRANGE/ TO 100 SB FUNCTIONALLY COMPATIBLE								
CV2003RU	5254C			28480	CONVERTER FREQ ELEC	019		3540
CV2350U	1292			06811	CONVERTER FREQ ELEC	019		3619
IO1373GR	950			14814	INDICATOR DIGITAL DISPLAY STRAIN GA	019		0589
PL1320U	5257A			28480	ELFC TEST EQUIP P 1	019		0806
TD1225V1U	5340A			28480	COUNTER MICROWAVE FREQ	019		2240
	DC502			80009	FREQUENCY	019		4143
	1255A			06811	OSCILLATOR TRANSFER	019		1715
	5260A			28480	FREQ DIVIDER	019		2111
	540A			28480	OSCILLATOR TRANSFER	019		1742
	6316A			06811	COUNTER ELEC DUAL	019		2245
FREQUENCY METER A 47 FUNCTIONALLY COMPATIBLE								
FR-40/GSN-1	21-982			20950	FREQUENCY METER	020	M	2285
FR40GSM1	P3			03508	FREQUENCY METER P/O ANGSHI	020	M	0664
	PFM604B			03927	METER FREQ	020	C	1785
PARTIALLY COMPATIBLE								
FR208V1U	5210A001			28480	METER FREQ	020	C	0576
	339			65092	METER FREQ	020	C	1773
	404			80053	DISCRIMINATOR FREQ	020	C	1726
FREQUENCY METER B 48 FUNCTIONALLY COMPATIBLE								
FR38AU	5248			28480	FREQ METER	020	C	0564
FR38DU	109000			94033	METER FREQ	020	C	0565
FR4U	SCOL164412			00346	METER FREQ	020	C	0566
	1142A			56118	METER FREQ	020	C	0563
				24655	METER/DISCRIMINATOR FREQ	020	C	1709
PARTIALLY COMPATIBLE								
ANURM32	SCL1341			49673	METER FREQ	020	C	0348
ANURM32A				49673	METER FREQ	020	C	0349
ANUSH159	K50110200			35225	METER FREQ	020	C	0450
ANUSH159A	K50110200			35225	METER FREQ	020	C	0451
ANUSH275	94051A			76487	METER GRID DIP	020	C	0504
1129	71138A			80063	WAVEMETER	020	C	0577
TS186DUP				21900	METER FREQ	020	C	0482
TS186EUP	3170			37093	METER FREQ	020	C	0983
	1737317D			51865	METER FREQ	020	C	0984
	2006			27593	VOLTMETER HETERODYNE	020	C	2099
	339			65092	METER FREQ	020	C	1773
	500R			28480	METER FREQ	020	C	1735
	5008R			28480	METER FREQ	020	C	3364

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## GENERAL PURPOSE INDE OTS ETE SPECIFICATIONS

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
FREQUENCY METER A							
48	PARTIALLY COMPATIBLE	5210A 527A	28480 19397	METER FREQUENCY FREQUENCY DIFFERENCE METER	020 020	M	4652 4655
FREQUENCY METER C							
49	PARTIALLY COMPATIBLE	SCL1341 ANUM32 ANUPM32A ANUSM159 ANUSM159A ANUSM275 1129 TS186DUP TS186EUP TS186FUP	49673 49673 35225 35225 35225 76487 80063 21900 37093 51865 27593 19397 28480	METER FREQ METER FREQ METER FREQ METER FREQ METER FREQ METER GRID DIP WAVEMETER METER FREQ METER FREQ VOLT METER FREQUENCY DIFFERENCE METER WAVEMETER ABSORPTION TYPE	020 020 020 020 020 020 020 020 020 020 020 020 020 020	C C C C C C C C C C M C	0348 0349 0450 0451 0504 0577 0982 0983 0984 2099 4655 2802
FREQUENCY METER D							
50	PARTIALLY COMPATIBLE	ANUSM159 ANUSM159A K50110200 K50110200 2006 527A 536A 587A	35225 35225 27593 19397 28480 77327	METER FREQ METER FREQ VOLT METER FREQUENCY DIFFERENCE METER WAVEMETER ABSORPTION TYPE	020 020 020 020 020 020	C C C M C C	0450 0451 2099 4655 2802 3365
FREQUENCY METER F							
51	PARTIALLY COMPATIBLE	ANUSM159 ANUSM159A K50110200 K50110200 527A 536A 587A	35225 35225 27593 19397 28480 77327	METER FREQ METER FREQ VOLT METER FREQUENCY DIFFERENCE METER WAVEMETER ABSORPTION TYPE	020 020 020 020 020 020	C C C M C C	0450 0451 2099 4655 2802 3365
FREQUENCY METER F							
52	FUNCTIONALLY COMPATIBLE	FR146U FR91U M410A FSC173B MCF12174N	00929 16786 16786	WAVEMETER WAVEMETER METER FREQ	020 020 020	C C C	0571 0569 1797
FREQUENCY METER F							
52	FUNCTIONALLY COMPATIBLE	TS186DUP TS186FUP TS186FUP 3170 1737317D	21900 37093 51865	METER FREQ METER FREQ METER FREQ	020 020 020	C C C	0982 0983 0984

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## GENERAL PURPOSE INDEOTS EYE SPECIFICATIONS

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SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
FREQUENCY METER F	52	PARTIALLY COMPATIBLE						
		536A			28480 WAVELENGTH ABSORPTION TYPE	020	C	2802
FREQUENCY METER G	53	FUNCTIONALLY COMPATIBLE						
		FR126U	X5328		28480 WAVELENGTH	020	C	0570
		FR194U	X532A		28480 METER FREQ	020	C	0574
		MF495U	537A		28480 METER FREQ	020	C	1741
			C4108		00929 METER FREQ	020	C	1807
			G532A		28480 FREQ METER	020	C	1270
			H530A		28480 METER FREQ	020	C	1816
			J532A		28480 METER FREQ	020	C	1821
			N414A		00929 METER FREQ	020	C	1781
			WD33712		16786 METER WAVE	020	C	3318
			X410A		00929 METER FREQ	020	C	1798
			X532A		28480 METER FREQ	020	C	1794
			X551F		28480 WAVELENGTH	020	C	1750
FREQUENCY METER H	54	FUNCTIONALLY COMPATIBLE						
		TS186UP			21900 METER FREQ	020	C	0982
		TS186UP	3170		37093 METER FREQ	020	C	0983
		TS186UP	7737317D		51865 METER FREQ	020	C	0984
FREQUENCY METER I	55	FUNCTIONALLY COMPATIBLE						
		FR125C			CAVITY TUNED	020	N	0670
			Y410A		00929 METER FREQ	020	C	1751
FREQUENCY METER J	56	FUNCTIONALLY COMPATIBLE						
		ANUPM60			82199 T S RADAR	053	A	0325
		ANUPM60A	SMD319527		82199 T S RADAR	053	A	0326
FUNCTION GENERATOR, SIGNAL	17	FUNCTIONALLY COMPATIBLE						
		ANUSH256			00929 WAVELENGTH	020	C	1822
		ANUSH264	K410A		28480 METER FREQ	020	C	1272
		ANUSH358	P532A		28480 METER FREQ	020	C	3282
		MURBARN			72314 GENERATOR SIGNAL	054	A	0491
		PL1285U	791A		28480 GENERATOR, SIGNAL	047	N	4019
			652A		80009 GENERATOR SIGNAL	054	A	0537
			106		MODULATOR	047	M	4029
			3305A		28480 SLEEP P I	081	A	0797

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## PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE INDE OTS ETC SPECIFICATIONS

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	IO NO.
FUNCTION GENERATOR, SIGNAL	19	FUNCTIONALLY COMPATIBLE						
SC106U		105		80009	GENERATOR SQUARE WAVE	054	A	0838
SC1102U		FS1A		07421	GENERATOR SIGNAL	047	A	1902
SG298AU		180		21764	GENERATOR SIGNAL	047	A	0840
SG298U		W1		08775	GENERATOR SIGNAL	047	A	0839
SG7998U		902333		28569	GENERATOR SIGNAL	054	A	0842
SG299U		802296		28569	GENERATOR SIGNAL	054	A	0841
SG121AU				80063	GENERATOR SIGNAL	047	A	0845
SG3218U		5533		24635	GENERATOR SIGNAL	047	A	0846
SG721U		3300A		83563	GENERATOR SIGNAL	047	A	0844
SG747U		111		29480	GENERATOR SIGNAL	047	A	0872
SG769U				23338	GENERATOR SIGNAL	047	A	0875
SG772C		105MOD149B		80009	GENERATOR SIGNAL	054	A	0877
SG970U		651801		28480	GENERATOR SIGNAL	047	M	4089
1D503305M		7413A		30669	GENERATOR SWEEP	281	M	0948
		FG501		80009	GENERATOR FUNCTION	047	M	4117
		FG503		80009	GENERATOR FUNCTION	047	M	4114
		F55A		07421	GENERATOR FUNCTION	047	A	1812
		GS18209		88600	SCALER VARIABLE SPEED	054	A	3068
		IG115		03782	GENERATOR SIGNAL	047	A	1908
		SG502		80009	OSCILLATOR	047	M	4115
		106TYPE2		80009	GENERATOR SQUARE WAVE	054	A	3340
		107		80009	SQUARE WAVE GENERATOR	054	A	1884
		116E		15859	GENERATOR SIGNAL	047	A	1888
		116VCC		23338	GENERATOR PHASE LOCK FUNCTION	047	A	1887
		1410		65092	ANALYZER FREQUENCY RESPONSE	047	A	1657
		142		23338	GENERATOR SIGNAL	047	M	4807
		3301A		28480	AUXILIARY P I	047	A	1841
		3310A		28480	GENERATOR FUNCTION	047	A	1842
		3310B		28480	GENERATOR FUNCTION	047	M	4634
		5048		10597	GENERATOR WAVEFORM	047	A	1862
		546A		28480	GENERATOR PULSE	047	M	5171
PARTIALLY COMPATIBLE								
ANUSH108		180A		28569	GENERATOR TIME MARK	047	A	0440
ANUSH108B		C3924A		29504	GENERATOR TIME MARK	047	A	0441
ANUSH269		1310A		24655	GENERATOR SIGNAL	006	A	0498
PL1178U		3305A		28480	SWEEP/OFFSET PLUG-IN	047	A	0791
PL1387U		0556A		28480	ANALYZER SPECTRUM LF TUNING SECTION	081	A	2692
SC1133U		3312A		28480	GENERATOR FUNCTION	047	M	4122
SG92U		110A		80138	GENERATOR SWEEP	052	A	0816
SG96AU		211R		28480	GENERATOR SIGNAL	054	M	4809
		FG504T		80009	GENERATOR FUNCTION	047	M	4123
		FS158MI		80009	TEST SET MEDICAL EQUIPMENT	032	M	4415
		PG501		80009	GENERATOR PULSE	050	N	4107
		PG502		80009	GENERATOR PULSE	050	M	4109

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## GENERAL PURPOSE INDE QTS ETE SPECIFICATIONS

SPECIFICATION NAME	SPTC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
FUNCTION GENERATOR, SIGNAL	19	PARTIALLY COMPATIBLE						
		PSX1		04423	GENERATOR PULSE	106	N	4108
		RG501		80009	GENERATOR RAMP	047	N	4119
		R1200A		01537	FM SERVICE MONITOR	106	N	4116
		SG503		80009	GENERATOR SIGNAL	108	N	4099
		1120		04423	GENERATOR SWEEP	109	A	1886
		164		23338	GENERATOR SWEEP	081	N	4810
		185A		30669	GENERATOR SQUARE WAVE AND ELEC SMT	054	A	1896
		2001		04423	GENERATOR SWEEP	108	A	1839
		202A		28480	GENERATOR SIGNAL	047	A	3345
		214AC38		28480	GENERATOR PULSE	050	A	3253
		3320B07		28480	SYNTHESIZER FREQUENCY	047	M	4873
		3330B		28480	AUTOMATIC SYNTHESIZER	052	N	4633
		6600		88869	GENERATOR SIGNAL	049	M	4603
		8082A		28480	GENERATOR PULSE	050	N	4611
		8660C		28480	R.F. SYNTHESIZER	106	M	4635
		86603A		28480	RF PLUG IN UNIT	053	N	4620
GAUSS METER	89	FUNCTIONALLY COMPATIBLE						
		TS15CAP			FLUXMETER	021	E	0952
		501		18479	GAUSSMETER	021	E	3368
		660		49673	GAUSSMETER	021	E	1702
		750						
		PARTIALLY COMPATIBLE						
		1965		49673	GAUSSMETER	021	E	1724
IMPULSE NOISE COUNTER	76	FUNCTIONALLY COMPATIBLE						
		CP1101U		06819	COUNTER ELEC DIGITAL	023	D	0551
INSULATION TEST SET	26	FUNCTIONALLY COMPATIBLE						
		ME481U		24655	MEGOMMETER	027	B	1392
		ZM21AU		66150	OHMMETER	025	B	1280
		ZM21RU		66150	OHMMETER	025	B	1281
		186A		24655	OHMMETER ELECTRONIC	025	B	1298
		5G1000		24655	OHMMETER HIGH POTENTIAL	025	B	1934
		A99400020		24655	MEGOMMETER	025	B	1390
		HD125XC		24655	MEGOMMETER	025	B	1391
		1862A		04237	TEST SET INSULATION	025	M	4556
		1862B		04237	TEST SET INSULATION BREAKDOWN	025	B	1403
		1862C		04237	TEST SET DIELECTRIC	025	M	4554
		404		24446	METEP INSULATION	025	B	1319
		4045						
		412						
		61GH00						

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## PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE TME OTS FTE SPECIFICATIONS

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
PARTIALLY COMPATIBLE							
ANGSM17A	7659240		19200	ELECTRICAL CABLE TEST SET	009	B	0193
ANGSM45	8213077		19200	T S ELECTRICAL CABLE	009	B	0196
T4200	CCT20		19203	T S ELECTRICAL CABLE	025	B	0939
	ESHMIX		82386	T S IGNITION COIL	025	B	3745
	KIR		80869	VOLTMETER	077	B	1297
	1050			TESTER TUBE CONTRAST TRSF	072	B	2547
	136X		28009	WHEATSTONE BRIDGE	008	B	1926
	16208		77068	TESTER CAPACITOR HI-POT	025	B	1324
	1644A		73386	MEGOMMETER	025	B	1386
	178C		24655	OHMMETER BRIDGE	008	B	1387
	21J1052		83490	TESTER INSULATION LEAKAGE	025	B	1327
	210400		07239	TESTER INSULATION MEGGER	025	B	1315
	21158		80448	MEGOMMETER	029	N	4788
	313		07239	OHMMETER LOW RESISTANCE	025	B	1437
	3202P		55026	MULTIMETER	032	B	1345
	41001		28569	SYSTEM DIGITAL MEASURING	077	B	1939
	60841A1106904		30119	T S PORTABLE HI-POT	025	B	1318
			83298	TESTER AC-DC INSULATION	025	N	4555
FUNCTIONALLY COMPATIBLE							
LOGIC ANALYZER	77		28480	ANALYZER LOGIC STATE	027	D	2522
	1601L		28480	LOGIC ANALYZER	027	N	4819
	1607A		32626	SCANNER UNIT FERTI	027	N	4711
PARTIALLY COMPATIBLE							
	10525A		28480	LOGIC PROBE	027	D	2701
	10528A		28480	LOGIC CLIP	027	D	2702
	10529A		28480	LOGIC COMPARATOR	027	D	2703
	5004A		28480	TESTER CIRCUIT DIGITAL	027	N	4918
	5011T		28480	LOGIC TROUBLESHOOTING KIT	027	D	2545
	547A		28480	TRACER DIGITAL CURRENT	027	N	4919
	7001F		80009	LOGIC ANALYZER PI	027	N	4923
FUNCTIONALLY COMPATIBLE							
MEGOMMETER	77		73386	MEGOMMETER	025	B	1910
	1420		57737	OHMMETER 0 TO 200 MEG 500VDC	029	N	1224
	222		07239	MEGOMMETER	025	B	1366
	679		07239	MEGOMMETER	025	B	1424
	76761						



# PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE INDF DTS ETE SPECIFICATIONS

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SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
PARTIALLY COMPATIBLE								
ANGSH13A			7659240	19200	ELECTRICAL CABLE TEST SET	009	B	0193
ANGSH45			8213077	19200	T S ELECTRICAL CABLE	009	B	0196
ANPRH15			29276	82680	MULTIMETER	032	B	0241
ME3680			610	96312	OHMMETER	035	B	0203
ZH54U			L801	05721	OHMMETER	035	B	1282
			CCT20	82386	T S IGNITION COIL	025	B	3745
			1080	28009	WHEATSTONE BRIDGE HIGH PRECISION	008	B	1379
			16208	73386	MEG OHMMETER	025	B	1366
			16944	24655	OHMMETER BRIDGE	008	B	1387
			2131092	07239	TESTER INSULATION MEGGER	025	B	1315
			210400	88448	MED OHMMETER	029	M	4788
			21158	07239	OHMMETER LOW RESISTANCE	025	B	1417
			313	55026	MULTIMETER	032	B	1345
			41001	30119	T S PORTABLE HI-POT	025	B	1318
FUNCTIONALLY COMPATIBLE								
MICROWAVE LINK ANALYZER	56							
			3703B	28480	DETECTOR SIGNAL DELAY	030	C	0562
			MD913PU	28480	ANALYZER MICROWAVE LINK	030	C	0646
			01736U	28480	PLUG IN DOWN CONVERTER OSCILLATOR	030	C	1677
			01737U	28480	PLUG IN DOWN CONVERTER OSCILLATOR	030	C	1679
			3703A	28480	DETECTOR SIGNAL DELAY	030	C	0561
			3737A	28480	DOWN CONVERTER P I	030	C	3719
			7062MH	95105	DELAY AND LINEARITY TEST GENERATOR	016	C	1880
PARTIALLY COMPATIBLE								
			3703B	28480	DETECTOR GROUP DELAY PI	061	M	4805
			3705A	28480	DETECTOR DIFFERENTIAL PHASE PLUG IN	061	C	1673
			3738A	26193	PLUG IN DOWN CONVERTER OSCILLATOR	030	C	1678
			3716A	28480	BANDWIDTH TRANSMITTER	030	C	1675
			37028004	28480	RECEIVER IF/88	061	C	1672
			3710A	28480	IF RB TRANSMITTER	030	C	1674
FUNCTIONALLY COMPATIBLE								
MODULATION METER	57							
			CE3	81865	METER MODULATION	031	C	0667
			ML20	81865	METER MODULATION	031	C	0666
			TE2304	26193	COMMUNICATIONS MONITOR	031	M	4091
			IF934	98282	METER AMPLITUDE MODULATION	031	C	1602
			934	09553	METER MODULATION AM/FM	031	M	4092
				09553	METER DEVIATION FM	031	C	1611
				09553	METER FM DEVIATION	031	C	1651

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GENERAL PURPOSE INDE QTS ETC SPECIFICATIONS

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
PARTIALLY COMPATIBLE							
FUNCTIONALLY COMPATIBLE							
MULTIMETER, DIGITAL	ANGSM64	V35A	09553	METER MODULATION AM/FM	031	C	1613
	ANGSM64A	342	09553	METER AM FM MODULATION	031	C	1614
	ANGSM64B	0400AFM	09553	METER CARRIER DEVIATION	031	C	1610
	ANUSH303	300M	28480	MODULATION ANALYZER	031	M	4865
	ANUSH303A	300HA					
	ANUSH451	0522168					
	ANUSH490	001					
	ANUSH98	34750A					
	ID2101U	353					
	ME227AU	MVL7C					
	ME227U	3440A					
	ME231FY05	217A					
	ME333U	345					
	ME338U	427A01					
	ME370U	7562A					
	ME457U	3450B					
	ME482PU	245					
	ME496U	34702A					
	PL1344U	5265A					
	SD7110A	7110A					
	TS2894ALM70A	15700001					
	TS340U	182092					
	TS443U	1					
	TS563AFT	81AM					
	XM91						
	XM92						
	DM501						
	ELECCI						
	ESV						
	E950081400						
	M45						
	PH32						
	PHX5						
	P9300R						
	RRL39K						
	T0700542						
	USPM00						
	X1						
	03626	VOLTMETER DIGITAL	03626	VOLTMETER DIGITAL	078	B	0199
	03626	VOLTMETER DIGITAL	03626	VOLTMETER DIGITAL	078	B	0200
	09536	VOLTMETER DIGITAL	09536	VOLTMETER DIGITAL	078	B	0201
	13913	MULTIMETER	13913	MULTIMETER	032	B	0513
	13913	MULTIMETER	13913	MULTIMETER	032	B	0514
	18076	T S ELECTRICAL CKT	18076	T S ELECTRICAL CKT	032	M	5105
	09536	VOLTMETER ELEC	09536	VOLTMETER ELEC	118	B	0416
	28480	P I MULTIMETER DISPLAY	28480	P I MULTIMETER DISPLAY	077	B	0417
	33430	VOLTMETER ELEC	33430	VOLTMETER ELEC	032	B	1439
	05711	VOLTMETER ELEC	05711	VOLTMETER ELEC	077	B	0687
	28480	VOLTMETER DIGITAL	28480	VOLTMETER DIGITAL	077	B	0688
	16335	MULTIMETER	16335	MULTIMETER	032	B	0696
	50423	MULTIMETER	50423	MULTIMETER	032	B	0699
	28480	VOLTMETER AC/DC	28480	VOLTMETER AC/DC	032	B	0704
	28480	MULTIFUNCTION METER	28480	MULTIFUNCTION METER	078	M	5178
	51692	MULTIMETER DIGITAL	51692	MULTIMETER DIGITAL	032	B	1397
	28480	MULTIMETER	28480	MULTIMETER	032	M	4792
	28480	VOLTMETER DIGITAL P I	28480	VOLTMETER DIGITAL P I	032	B	3565
	06811	MULTIMETER DIGITAL	06811	MULTIMETER DIGITAL	078	B	0809
	19397	T S CONTINUITY AND STRAY VOLTAGE	19397	T S CONTINUITY AND STRAY VOLTAGE	091	M	4058
	65092	VOLTMETER	65092	VOLTMETER	032	B	1213
	65092	VOLTMETER	65092	VOLTMETER	076	B	0918
	64959	T S WIRING	64959	T S WIRING	077	B	1021
	19200	TEST SET ELECTRONIC SYSTEMS	19200	TEST SET ELECTRONIC SYSTEMS	003	B	1050
	80009	MULTIMETER DIGITAL	80009	MULTIMETER DIGITAL	032	M	4055
	32590	VOLTMETER	32590	VOLTMETER	032	M	4054
	15381	MULTIMETER DIGITAL	15381	MULTIMETER DIGITAL	032	B	3747
	65092	VOLTMETER ELEC	65092	VOLTMETER ELEC	076	B	1983
	65092	VOLTMETER DC	65092	VOLTMETER DC	076	B	3268
	79500	VOLTMETER DC	79500	VOLTMETER DC	032	B	1296
	98438	VOLTMETER	98438	VOLTMETER	078	M	4067
	86210	T S CURRENT RESISTANCE SEMIAUTOMATIC	86210	T S CURRENT RESISTANCE SEMIAUTOMATIC	032	B	1301
	06840	TEST CONSOLE BASIC	06840	TEST CONSOLE BASIC	077	B	2025
	03762	MULTIMETER	03762	MULTIMETER	025	B	1996
	03626	MULTIMETER DIGITAL	03626	MULTIMETER DIGITAL	032	B	2028
					032	B	3140
					032	B	1309
					032	B	1311

## PART I CROSS-REFERENCE LIST

## GENERAL PURPOSES INDE OTS ETC SPECIFICATIONS

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SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
MULTIMETER, DIGITAL	29	FUNCTIONALLY COMPATIBLE						
	X2			03626	MULTIMETER DIGITAL	032	B	1312
	X3A			03626	MULTIMETER DIGITAL	032	B	1313
	101			89497	MULTIMETER BLASTING	032	B	1322
	111			55026	VOLTMETER	077	B	2040
	1400			31946	VOLTMETER DC	077	B	1928
	1400			31946	AMMETER DC	003	B	1929
	167			80164	MULTIMETER AUTORANGING DIGITAL	032	B	1326
	2430C			31922	VOLTMETER DC	077	B	1937
	261C			14031	MULTIMETER DIGITAL	032	B	1337
	283			08098	MULTIMETER DIGITAL	032	N	4844
	3430A			28480	VOLTMETER DIGITAL	078	B	1942
	3439A			28480	VOLTMETER DIGITAL	078	N	4565
	3439AC28			28480	VOLTHOM MILLIAMETER MAINFRAME DIGI	078	B	1292
	3443A			28480	VOLTMETER P I UNIT	077	B	1943
	3444A			28480	DC MULTIFUNCTION UNIT	032	B	1395
	3444AC15			28480	P I UNIT ELEC TEST EQUIP	032	B	1291
	3445A			28480	VOLTMETER P I UNIT	076	B	1944
	3445AC06			28480	AC DC RANGE P I UNIT	076	B	1945
	3446A			28480	VOLTMETER RANGE EXTENDER	076	B	1396
	3450A			28480	MULTIMETER	032	B	1396
	3455A			28480	VOLTMETER DIGITAL	078	N	4843
	3465A			28480	MULTIMETER DIGITAL	032	N	4562
	3465B			28480	MULTIMETER DIGITAL	078	N	5157
	3466A115			28480	MULTIMETER DIGITAL	078	N	4846
	34703A			28480	MULTIMETER PLUG-ON	032	N	4561
	3480A			28480	VOLTMETER DIGITAL	078	B	1946
	3480C			28480	DIGITAL VOLTMETER MAINFRAME	078	B	1400
	3482A			28480	DC RANGE UNIT	078	N	4539
	3484A			28480	MULTIFUNCTION UNIT PLUG IN	032	N	4569
	3490AOPTION06			28480	MULTIMETER DIGITAL	078	B	1401
	41132			21793	MULTIMETER DIGITAL	032	B	1402
	41729			38474	VOLTMETER DC	077	B	2037
	430			80164	AMMETER MICRO MICRO	003	B	2017
	4324			65092	VOLTMETER DC	078	M	4540
	4440			29318	MULTIMETER DIGITAL	032	B	1406
	4440			55026	MULTIMETER DIGITAL	032	B	1407
	4900			21793	VOLTMETER DIGITAL	032	N	4845
	491			03626	VOLTAGAGE DIGITAL	078	B	1409
	484A			03626	VOLTMETER DIGITAL	078	B	1956
	5000S2351			21793	VOLT-OMMETER	078	B	1413
	50001			13643	VOLTMETER DIGITAL	078	B	1957
	5400			21793	MULTIMETER	032	B	1415
	5600			21793	VOLTMETER DIGITAL	078	B	2577
	5640			21793	MULTIMETER DIGITAL	078	B	1416
	5703S2127			21793	VOLTMETER DIGITAL RATIOHETER	078	B	2578

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## PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE TME DTS ETC SPECIFICATIONS

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	HFR. MODEL NO.	HFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
MULTIMETER, DIGITAL	29	FUNCTIONALLY COMPATIBLE						
		5900		21793	MULTIMETER DIGITAL	078	B	1417
		600		05413	TESTER COIL CONDENSER	032	N	4755
		7050		06811	MULTIMETER	032	B	1421
		7100A		13989	VOLTMETER	078	B	1422
		7300A631		98438	MULTIMETER DIGITAL	032	B	2048
		7630		98438	MULTIMETER DIGITAL	032	B	1423
		784		03626	OHMMETER DIGITAL	035	B	1371
		8000A		09536	MULTIMETER DIGITAL	032	N	4554
		8000A		60741	MULTIMETER DIGITAL	032	N	4568
		8000A1R01		09536	MULTIMETER DIGITAL	032	N	4560
		8000A01		09536	MULTIMETER DIGITAL	032	B	1426
		8020A01		09536	MULTIMETER DIGITAL	032	N	4566
		8100A		09536	MULTIMETER DIGITAL	032	B	1427
		8100A01		09536	MULTIMETER DIGITAL	032	B	1428
		8100B		09536	MULTIMETER DIGITAL	032	B	1429
		8120A		09536	MULTIMETER DIGITAL	032	B	1430
		8125A		09536	MULTIMETER	032	B	1431
		8200A		09536	VOLTMETER DIGITAL	078	B	1432
		8300A		09536	MULTIMETER DIGITAL	032	B	1433
		8350A		09536	MULTIMETER DIGITAL	032	B	1434
		8375A		09536	MULTIMETER DIGITAL	032	N	4567
		8400A		09536	VOLTMETER DIGITAL	078	B	1435
		8600A		09536	MULTIMETER DIGITAL	078	N	4842
		8600A01		09536	MULTIMETER DIGITAL	078	N	5184
		880		28009	VOLTMETER D C DIGITAL	077	B	3703
		9014905001		65092	MILLIAMMETER DC	003	N	4544
		9041906001		65092	VOLTMETER AC	078	N	4538
		9280147		19203	POLARITY TEST PLUG	032	B	3483
		970A		28480	MULTIMETER DIGITAL	032	B	1177
PARTIALLY COMPATIBLE								
ANGSM13A		7659240		19200	ELECTRICAL CABLE TEST SET	009	B	0193
ANGSM45		8213077		19200	T S ELECTRICAL CABLE	009	B	0196
ANUSH262		560101012		33441	AMMETER	001	B	0495
ANUSH319A		2673		55026	MULTIMETER	032	B	3718
ANUSH337		853A03		09536	MULTIMETER DIFFERENTIAL	032	B	1376
IS185		433		65092	VOLTMETER	076	B	0602
ME147U		ESH		54085	VOLTMETER	076	B	0677
ME202BU		803B		09536	VOLTMETER ELEC	121	B	0683
ME202U		803		09536	VOLTMETER ELEC	121	B	0682
ME26AU		410B		28480	MULTIMETER	032	B	0656
ME26BU				91820	MULTIMETER	032	B	0657
ME26CU		280000		99395	MULTIMETER	032	B	0658
ME26DU					MULTIMETER	032	B	0659
ME26U		410A		28480	MULTIMETER	032	B	0655

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## PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE INDE DIS EEE SPECIFICATIONS

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
MULTIMETER, DIGITAL	29	PARTIALLY COMPATIBLE						
ME260U		4038		28480	VOLTMETER ELEC	076	B	0691
ME262U		305A		50423	VOLTMETER ELEC	076	B	0692
ME30AU		4000		28480	VOLTMETER ELEC	076	B	0661
ME30BU		513A		26687	VOLTMETER ELEC	076	B	0662
ME30CU		513A		26687	VOLTMETER ELEC	076	B	3622
ME30DU		111A		35124	VOLTMETER ELEC	076	B	0663
ME30EU		998101		12365	ELECTRONIC VOLTMETER	076	B	3623
ME30FU				25778	VOLTMETER ELECTRONIC	076	N	4046
ME30U		400C		28480	VOLTMETER ELEC	076	B	0694
ME303AU		410C		28480	VOLTMETER ELEC	032	B	0697
ME314U		3091		00638	VOLTMETER ELEC	076	B	0703
ME368U		610		96332	OHMMETER	035	B	0703
ME419U		270		55026	MULTIMETER ELEC	076	B	0706
ME425U		400L		28480	VOLTMETER ELECTRONIC	076	B	0708
ME444U		320A		50423	VOLTMETER ELEC	076	B	0709
ME450U		260		16902	MULTIMETER	032	B	0711
ME452U		9		55026	MULTIMETER	032	B	1368
ME489U		749		65092	MULTIMETER	032	B	3626
ME77				65092	MULTIMETER	032	B	0676
ME87U		280		82066	T S TELEPHONE	032	B	0954
TS26ATSM		121956		80562	T S TELEPHONE	032	B	0955
TS26ATSM		3240		31713	T S TELEPHONE	032	B	0953
TS26ATSH		883AB		89536	VOLTMETER	121	B	1210
TS2843U				71440	MULTIMETER	032	B	0994
TS297U				7221	MULTIMETER	032	B	1000
TS3528U		972		65092	MULTIMETER	032	B	0999
TS352U		PL3000		7221	MULTIMETER	032	B	1036
TS505AU		D11700		94066	MULTIMETER	032	B	1037
TS505BU					MULTIMETER	032	B	1038
TS505CU					MULTIMETER	032	B	1039
TS505DU					MULTIMETER	032	B	1040
TS505EU					MULTIMETER	032	B	1035
TS505U					MULTIMETER	118	B	1115
TS816U		EAD197129		02581	MULTIMETER	032	N	4415
		123		64959	T S TELEPHONE	032	N	4097
		KS14103		80009	MULTIMETER DIGITAL	032	N	4415
		DM502		80009	TEST SET BIOMEDICAL EQUIPMENT	032	N	4415
		FS158MI		50666	VOLTMETER	076	N	4835
		HL55C		79500	VOLTMETER PORTABLE	076	N	4045
		PAL4AC		32590	MICROAMMETER	003	N	4048
		UPP		24655	MICROVOLTAGE AUDIO FREQ	076	A	1927
		1346		29318	MULTIMETER	032	B	1380
		1477		24655	VOLTMETER ELECTRONIC	032	B	1624
		1806A		49671	MULTIMETER	032	B	1328
		195A		16152	VOLTMETER DC	077	B	2001
		201		05157	VOLTMETER	077	B	2002
		202H		28480	VOLTMETER DIGITAL INTERGRATING	078	N	4786
		2401C						

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PART I CROSS-REFERENCE LIST  
GENERAL PURPOSE IMDE DIS FIE SPECIFICATIONS

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
MULTIMETER, DIGITAL	29	PARTIALLY COMPATIBLE						
		2612		55026	MULTIMETER	032	N	4563
		302C		05535	MULTIMETER ELECTRONIC	076	N	4529
		3202P		28569	SYSTEM DIGITAL MEASURING	077	B	1939
		3460BH23		28480	VOLTMETER DIGITAL	078	B	1985
		3469B		28480	MULTIMETER DIGITAL	032	B	1398
		355		50423	VOLTMETER AC DC	076	B	2015
		412		80164	AMMETER DC	003	B	2065
		414A		28480	AUTOVOLTMETER	077	B	3569
		417		80164	AMMETER	003	B	2016
		419A		28480	VOLTMETER DC NULL	077	B	1350
		425A		28480	AMMETER DC MICROVOLT	077	B	1351
		425AR		28480	AMMETER DC MICROVOLT	077	B	1352
		430		65092	MILLIVOLT-AMMETER DC	032	B	1354
		430		65092	MILLIVOLTMETER DC	077	B	2021
		501905		97424	MULTIMETER	032	B	1441
		5203		31288	MEMORY VOLTMETER	078	N	4542
		600		60741	VOLT-OHMETER	032	B	1357
		666H		60741	MULTIMETER	032	B	1364
		666HH		60741	MULTIMETER	032	B	1365
		666RW669RL		60741	MULTIMETER	032	B	1418
		7000		96662	AMMETER AC VOLT	032	B	1419
		779		65092	MULTIMETER	032	B	1370
		795		65092	MULTIMETER PORTABLE	032	B	1372
		801		60741	MULTIMETER	032	B	1373
		836820		65054	MILLIAMMETER	003	B	2053
		931		65092	AMMETER DC	003	B	1925
		990		60741	T S INDUSTRIAL ANALYZER	032	B	2520
MULTIMETER, DIGITAL HANDHELD	28	FUNCTIONALLY COMPATIBLE						
		ANPSM6		95325	MULTIMETER	032	B	0254
		ANPSM6A		95325	MULTIMETER	032	B	0255
		ANPSM6B		95325	MULTIMETER	032	B	0246
		ANUPH105	1995002		MULTIMETER	032	B	0385
		ANUPH105B		06833	MULTIMETER	032	B	0386
		ANUPH105C		12510	MULTIMETER	032	B	0387
		ANUSH1A3		28480	MULTIMETER	032	B	1633
		LM66	HE0000223	55026	TESTER FLASH GUN	032	B	0606
		ME 26AU	4108	28480	MULTIMETER	032	B	0656
		ME 26BU		91820	MULTIMETER	032	B	0657
		ME 26CU	260000	99395	MULTIMETER	032	B	0658
		ME 26DU			MULTIMETER	032	B	0659
		ME 26U	410A	28480	MULTIMETER	032	B	0655
		ME 262U	305A	50423	MULTIMETER	076	B	0692
		ME 450U	260	16902	MULTIMETER	032	B	0709
		ME 489U	769	65092	MULTIMETER	032	B	1368

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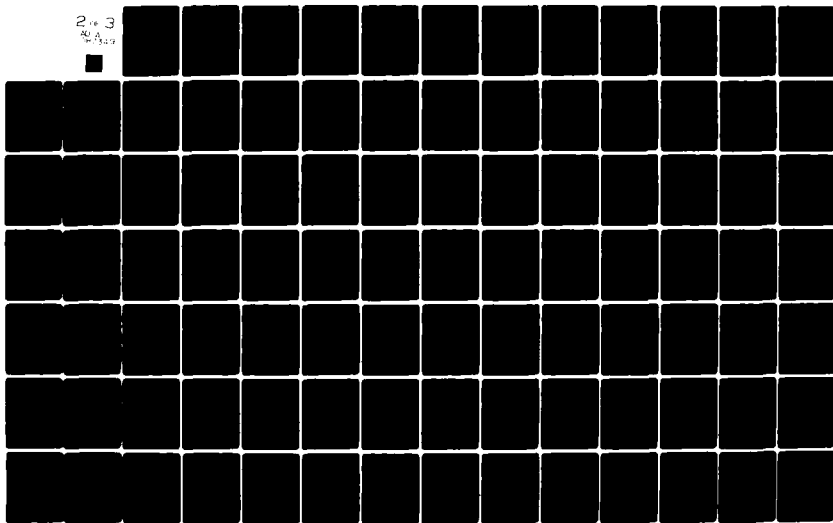
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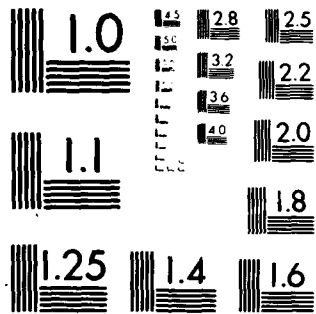
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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A



# PART I CROSS-REFERENCE LIST

GENERAL PURPOSE INDE OTS FIF SPECIFICATIONS

07/01/80

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
MULTIMETER, DIGITAL HANDHELD 2H FUNCTIONALLY COMPATIBLE							
MF77				MULTITESTER	032	B	3626
ME7U		280	65092	MULTIMETER	032	B	0676
WILMI6034A				VOLTMETER DC 0-300V	032	M	1184
TS103AU			81538	T S BATTERY	032	B	0980
TS103RU			74096	T S BATTERY	032	B	0981
TS103U				T S BATTERY	032	B	0979
TS257ARW		121956		TEST SET	032	M	1176
TS26ATSM			82066	T S TELEPHONE	032	B	0954
TS26BTSM			88562	T S TELEPHONE	032	B	0955
TS26TSM		3240	31713	T S TELEPHONE	032	B	0953
TS287GM			49652	TESTER BATTERY	032	B	3711
TS297U			71440	MULTIMETER	032	B	0994
TS352RU			77221	MULTIMETER	032	B	1000
TS352U		972	65092	MULTIMETER	032	B	0999
TS300U				MULTIMETER	032	M	1172
TS016U		KS14103	64959	T S TELEPHONE	118	B	1115
		UPP	32590	MICROAMMETER	003	M	4048
		1015BF	98202	TESTER IGNITER CKT CONTINUITY	118	E	1323
		160	55026	MULTIMETER	032	A	1325
		200	80164	VOLTMETER ELEC	032	B	1329
		230	55026	MULTIMETER	032	B	1332
		310	65092	WATTMETER	032	B	1771
		372	55026	OHMMETER	035	M	4553
		501905	97424	MULTIMETER	032	B	1441
		564	65092	OHMMETER VOLT	032	B	1356
		600	60741	VOLT-OHMMETER	032	B	1357
		631	60741	MULTIMETER ELEC	032	B	1361
		666H	60741	MULTIMETER	032	B	1364
		666HH	60741	MULTIMETER	032	B	1365
		666RW669RL	60741	MULTIMETER	032	B	1418
		7000	96662	AMMETER AC VOLT	032	B	1419
		779	65092	MULTIMETER	032	B	1370
		785	65092	MULTIMETER PORTABLE	032	B	1372
		801	60741	MULTIMETER	032	B	1373
		827X51	24446	MULTIMETER	032	B	1374
		850	60741	MULTIMETER	032	B	1375
		990	60741	T S INDUSTRIAL ANALYZER	032	B	2520
PARTIALLY COMPATIBLE							
ANGSM13A		7659240	19200	ELECTRICAL CABLE TEST SET	009	B	0193
ANGSM45		8213077	19200	T S ELECTRICAL CABLE	009	B	0196
ANPRL5		28276	82680	MULTIMETER	032	B	0241
ANPSM4		979	65092	MULTIMETER	032	B	0247
ANPSM4A			55026	MULTIMETER	032	B	0248
ANPSM4B		02667		MULTIMETER	032	B	0249

# PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE TIME OYS FTE SPECIFICATIONS

07/01/80

SPEC. NO.	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	CP LTR	ID NO.
MULTIMETER, DIGITAL HANDHELD 24	PARTIALLY COMPATIBLE						
ANPSM4C			91020	MULTIMETER	032	B	0250
ANPSM4D	127160		19913	MULTIMETER	032	B	0251
ANPSM4E	PSM4		12510	MULTIMETER	032	B	0252
ANPSM4F			12510	MULTIMETER	032	B	0253
ANPSM4G	VP9E3010001		21246	MULTIMETER	032	B	0258
ANUSM109	630A		60741	MULTIMETER	032	B	0564
ANUSM210	2606		55026	MULTIMETER	032	B	1335
ANUSM223			28369	MULTIMETER	032	B	0482
ANUSM262	560T01012		33441	ANMMETER	001	B	0495
ANUSM98	801		89536	VOLINETER ELEC	077	B	0437
IS105	433		65092	VOLINETER	076	B	0602
ME147U	ESH		54085	VOLINETER	076	B	0677
ME227AU	353		33430	VOLINETER ELEC	077	B	0687
ME227U	NV17C		85711	VOLINETER ELEC	077	B	0686
ME240U	4038		28480	VOLINETER ELEC	076	B	0691
ME303AU	410C		28480	VOLINETER ELEC	032	B	0694
ME333U	217A		16335	MULTIMETER	032	B	0696
ME330U	345		50423	MULTIMETER	032	B	0699
ME348U	610		96332	DIIMETER	035	B	0703
ME370U	427A01		28480	MULTIMETER	032	B	0704
ME419U	270		55026	MULTIMETER ELEC	032	B	0705
ME452U	9		55026	MULTIMETER	003	B	0711
ME511U	9312402001		65092	ANMMETER DC	032	N	4544
TS27ATSM	713003		T S TELEPHONE		032	B	0957
TS270TSM	ETS278		00798	T S TELEPHONE	032	B	0958
TS271SM	D166237		64959	T S TELEPHONE	032	B	0956
TS505AU	PL3000		77221	MULTIMETER	032	B	1036
TS505BU	D11700		94066	MULTIMETER	032	B	1037
TS505CU				MULTIMETER	032	B	1038
TS505DU				MULTIMETER	032	B	1039
TS505EU	EAD197129		02581	MULTIMETER	032	B	1040
TS505U	123			MULTIMETER	032	B	1035
TS505U			19203	T S ELECTRICAL CABLE	025	B	0939
TS505U	LRO1		05221	OHMMETER	035	B	1282
TS505U	ACL		13648	ANMMETER AC VOLTS	001	N	4059
TS505U	CCT20		82386	T S IGNITION COIL	025	B	3745
TS505U	CT3		31989	TESTER CKT CONTINUITY	118	B	1293
TS505U	DCHI		03782	VOLINETER	077	B	2654
TS505U	K18			TESTER TUBE CONTRAST	072	B	2547
TS505U	PH32		65054	MULTIMETER ELEC	032	B	1301
TS505U	RS3		15566	MULTIMETER	032	B	1303
TS505U	RS3A		15566	MULTIMETER	032	B	1304
TS505U	RS300		15566	METER AC VOLT ANMMETER	001	B	1305
TS505U	TVOM3		25778	METER OHM	032	B	1308
TS505U	TV546		94990	T S RADIO	032	B	2429
TS505U	WV98C		49671	MULTIMETER	032	B	1310

# PART 1 CROSS-REFERENCE LIST

## GENERAL PURPOSE IMDF OTS FIE SPECIFICATIONS

07/01/80

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
MULTIMETER, DIGITAL HANDHELD 28 PARTIALLY COMPATIBLE							
1007		15566		MULTIMETER	032	B	1378
167		80164		MULTIMETER AUTORANGING DIGITAL	032	B	1376
1806A		24655		VOLTMETER ELECTRONIC	032	B	1624
201		04237		MULTIMETER PORTABLE	032	B	1330
255		04237		VIBROGROUND	035	B	2004
2605		55026		MULTIMETER	032	B	1336
2612		55026		MULTIMETER	032	M	4563
303		55026		MULTIMETER	032	B	1340
310		60741		MULTIMETER	032	B	1341
310C		60741		MULTIMETER	032	B	1343
311		55026		METER VOLT OHM	032	B	1344
313		55026		MULTIMETER	032	B	1345
370		65092		AMMETER AC/DC	001	M	4546
41132		38474		VOLTMETER DC	077	B	2037
427A		28480		MULTIMETER	032	B	1353
5130		15309		AMMETER PORTABLE DC 0-500AMP, 25 PC	032	M	4543
518		49932		VOLTMETER ELECTROSTATIC	076	B	1958
610EH		03438		ANALYZER CKT	110	E	1359
622		65092		VOLTMETER DC	077	B	1960
633VA1		65092		MULTIMETER	032	B	1362

## NOISE FIGURE METER 13 FUNCTIONALLY COMPATIBLE

SG1018U	J347A	28480		NOISE SOURCE	055	C	0892
SG419U	503	11332		GENERATOR THERMAL NOISE	055	A	0854
SG678C	G347A	28480		NOISE SOURCE	055	A	3541
SG978U	343A	28480		GENERATOR SOURCE	055	A	0886
TS2436G	342A	28480		1 S AMP	033	C	1197
	H347A	28480		NOISE SOURCE	055	A	1907
	P347A	28480		GENERATOR THERMAL NOISE	055	A	1913
	X347A	28480		NOISE SOURCE	055	A	1877
	7616	12678		NOISE SOURCE DIODE	055	M	4608
	7617	12678		NOISE SOURCE DIODE	055	M	4609
	904A	77327		GENERATOR NOISE	055	A	1873

## PARTIALLY COMPATIBLE

PANF175	12678			INDICATOR NOISE FIGURE AUTOMATIC	055	M	4110
16115	03782			MICROWAVE IMPULSE SOURCE	050	A	1878
1402	27591			GENERATOR SIGNAL	055	M	4103
3408	28480			METER NOISE FIGURE	033	C	1774
3722A	28480			NOISE GENERATOR	055	M	4610
5105A	80138			GENERATOR THERMAL NOISE	055	A	0848

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## PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE TMOE OTS ETE SPECIFICATIONS

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
NOISE GENERATOR, TWELVE CHANNEL	59	FUNCTIONALLY COMPATIBLE						
		SG1114U	IN7816A	09553	TWELVE CHANNEL NOISE GENERATOR	034	C	1922
NOISE POWER RATIO TEST SET	58	FUNCTIONALLY COMPATIBLE						
		ANGSM161	042090	09553	T S NOISE LOADING	034	C	0208
		ANGSM161A	042090A	09553	T S NOISE LOADING	034	C	0209
		01321GSH	IN77944	09553	OSCILLATOR RF	034	C	1921
OHMMETER	30	FUNCTIONALLY COMPATIBLE						
			362	55026	OHMMETER	035	B	1347
			6892F	65092	OHMMETER	035	M	4550
		PARTIALLY COMPATIBLE						
		MF368U	610	96332	OHMMETER	035	B	0703
		Y27B		87991	OHMMETER DETONATOR CIRCUIT	035	M	4770
		ZM54U	LR01	05721	OHMMETER	035	B	1282
			BH819A	98869	OHMMETER	035	B	1290
			B2500	00426	T S INSULATION BREAKDOWN	025	B	1288
			NH1	55853	TEST EQUIPMENT RESISTANCE ANALYZER	035	M	4050
			1050	28009	WHEATSTONE BRIDGE	008	B	1926
			72439	07239	KELVIN BRIDGE	008	B	1320
OHMMETER, EARTH TESTER	31	FUNCTIONALLY COMPATIBLE						
		YS3221U	63220	07239	T S NULL BALANCE EARTH TESTER	035	B	1237
		1448	780	83298	OHMMETER HAZARDOUS CIRCUIT	035	M	4771
				04237	TESTER GROUND RESISTANCE	035	M	4552
		PARTIALLY COMPATIBLE						
			BH819A	98869	OHMMETER	035	B	1290
			B2500	00426	T S INSULATION BREAKDOWN	025	B	1288
			255	04237	VIBROGROUND	035	B	2004
			72439	07239	KELVIN BRIDGE	008	B	1320
OPTICAL TEST SET	90	FUNCTIONALLY COMPATIBLE						
		ME86U	143762	65092	METER FOOT CANDLE PHOTO ELECTRIC	119	E	0675
			7039960009	65092	METER FOOT CANDLE	119	M	4648

# PART 1 CROSS-REFERENCE LIST

07/01/80

## GENERAL PURPOSE TMOE DYS EYE SPECIFICATIONS

SPECIFICATION NAME	SPEC MD	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
OSCILLOGRAPHIC RECORDER A	91	FUNCTIONALLY COMPATIBLE						
AM681V1U		8808A		28480	P I RECORDER	036	E	1461
ANUSM46		81202931		96795	OSCILLOGRAPH SET MAGNETIC	036	E	0425
RD207ASH12V		RD232100		96795	OSCILLOGRAPH	036	E	0814
RD425U		322		28480	RECORDER DUAL CHANNEL	036	E	0815
RD460V1U		7702R		28480	RECORDER DUAL CHANNEL	036	E	0816
		MH906A		40931	OSCILLOGRAPH RECORDER	036	M	4064
		200		96795	RECORDER ELECTRONIC	036	M	4795
		252100		96795	RECORDER ELECTRONIC	036	E	1486
		322A		15859	OSCILLOGRAPH	036	E	1536
		7402A137		98220	OSCILLOGRAPH RECORDER TWO CHANNEL	036	M	4573
		PARTIALLY COMPATIBLE						
OSCILLOGRAPHIC RECORDER B	92	FUNCTIONALLY COMPATIBLE						
ANUSM365V1		7706814		28480	RECORDER THERMAL OSCILLOGRAPH	036	E	0539
PL1390U		8801A		28480	P I PREAMPLIFIER LOW GAIN DC	036	E	1459
RD426U		7418A		28480	OSCILLOGRAPHIC RECORDER	036	E	1547
RD189G		RD264200		96795	OSCILLOGRAPH	036	E	0813
		LAA3		15566	RECORDING AMMETER MINI STRIP CHART	036	M	4071
		RD252220		96795	RECORDER DUAL CHANNEL	036	E	1553
		PARTIALLY COMPATIBLE						
OSCILLOSCOPE, DC-15MHZ	51	FUNCTIONALLY COMPATIBLE						
AM681V1U		8808A		28480	P I RECORDER	036	E	1461
PL1390U		8801A		28480	P I PREAMPLIFIER LOW GAIN DC	036	E	1459
RD425U		322		28480	RECORDER DUAL CHANNEL	036	E	0815
RD460V1U		7702R		28480	RECORDER DUAL CHANNEL	036	E	0816
		61140T		94426	RECORDER EVENT 40 CHANNELS	036	M	4848
		322A		15859	OSCILLOGRAPH	036	E	1536
		PARTIALLY COMPATIBLE						
AM1841USM		5354B		80009	P I PREAMPL	089		0005
AM1842AUSM		C		80009	PREAMPL	089		0007
AM1842USM		5354C		80009	DIFFERENTIAL PLUG IN	089		5169
AM1842USM		5354CH000A01		80009	PREAMPL	089		0006
AM3015USM137		1528		28480	AMPL RADIO FREQ P I	089		0009
AM3148USM		D		80009	PREAMPL P I	089		0010
AM3174USM		L		80009	P I PREAMPL VIDEO	089		0011
AM3567AUSM		18049A		28569	PREAMPL DIF	089		0013

# PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE TME OTS EYE SPECIFICATIONS

07/01/80

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY GP CODE	LTR ID NO.
OSCILLOSCOPE, DC-15MHZ	SI	FUNCTIONALLY COMPATIBLE					
AM3567USH			18049	28569	PREAMPL P I DIFF	089	0012
AM3568AUSH			18048A	28569	OSCILLOSCOPE SUBASSY PREAMPL VERT C	089	0015
AM3568USH			18048	28569	P I OSCILLOSCOPE VERT PREAMPL	089	0014
AM6786U			7A22	80009	PI HIGH GAIN DIFFERENTIAL AMPLIFIER	089	1570
AMUSH105			1608162A	28480	OSCILLOSCOPE	089	0438
AMUSH105A			1608162A166A	28480	OSCILLOSCOPE	089	0439
AMUSH117			321E3161	20183	OSCILLOSCOPE	089	0443
AMUSH117A				20183	OSCILLOSCOPE	089	0444
AMUSH154			317101	80009	OSCILLOSCOPE	089	0449
AMUSH182			535A101	80009	OSCILLOSCOPE	089	0457
AMUSH182A			535A101M	80009	OSCILLOSCOPE	089	0458
AMUSH24			55B	18372	OSCILLOSCOPE	089	0411
AMUSH254			130C	28480	OSCILLOSCOPE	089	0520
AMUSH309V1			140AE51	28480	OSCILLOSCOPE	089	0409
AMUSH309V2			15708H01	28480	OSCILLOSCOPE	089	0521
AMUSH332			98000721	18778	OSCILLOSCOPE	089	0413
AMUSH364V1			R422	80009	OSCILLOSCOPE	089	4062
AMUSH50A			239C	35225	OSCILLOSCOPE	089	0429
AMUSH50B			K00000177	35225	OSCILLOSCOPE	089	0430
AMUSH50C				92161	OSCILLOSCOPE	089	0542
AMUSH504			533A	80009	OSCILLOSCOPE	089	3611
AMUSH81			535W5354C	80009	OSCILLOSCOPE	089	0434
AMUSH89			319A	80009	OSCILLOSCOPE	089	0435
AMUSH89B			1808	28569	OSCILLOSCOPE	089	0543
AMVDH2				07214	CALIBRATOR SET RADIAC	089	0738
MX2330C			535	80009	OSCILLOSCOPE	089	0741
MX2930AUSH			162A	28480	OSCSC SUBASSY VERT CH DUAL TR PREAM	089	0746
MX2962USH105			166DM	28480	OSCSC SUBASSY	089	0745
MX2962USH105			1804A7	28569	OSCSC SUBASSY	089	0780
OS110U			122A	28480	OSCILLOSCOPE	089	0781
OS123U			RM504HMD233A	80009	OSCILLOSCOPE	089	1516
OS124GRM19			120A	28480	OSCILLOSCOPE	089	0782
OS1325PA			321	80009	OSCILLOSCOPE	089	4800
OS209PUSH3			181A	28480	OSCILLOSCOPE	089	0786
OS233PAU			561B	80009	OSCILLOSCOPE	089	0785
OS233PU			561A	80009	OSCILLOSCOPE	089	0740
OS242U			503	80009	OSCILLOSCOPE	089	0773
OS5001U			304AR	72314	OSCILLOSCOPE	089	0774
OS8AU			49	19133	OSCILLOSCOPE	089	0775
OS8AU			902206	28569	OSCILLOSCOPE	089	0776
OS8CU			NAV115	91820	OSCILLOSCOPE	089	0777
OS8DU				35533	OSCILLOSCOPE	089	0778
OS8FU				59025	OSCILLOSCOPE	089	0779
OS8GU				34487	OSCILLOSCOPE	091	0772
OS8U			1506	28569	OSCILLOSCOPE	089	
			CS435				

# PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE TMDE QTS EYE SPECIFICATIONS

07/01/80

SPECIFICATION NAME	SPFC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
OSCILLOSCOPE, DC-15MHZ	SI	FUNCTIONALLY COMPATIBLE						
	PL1312U	3A72	80009 P I DUAL TRACE	80009	P I DUAL TRACE	089		0405
	PL1313U	1A05A	28480 VERT AMP OSCILLOSCOPE P I	28480	VERT AMP OSCILLOSCOPE P I	089		4083
	PL1323U	1A11A	28480 AMP SAMPLING VERTICAL P I	28480	AMP SAMPLING VERTICAL P I	089		0807
	PL1373U	S6	80009 P I UNIT SAMPLING HEAD	80009	P I UNIT SAMPLING HEAD	089		0810
	TD1085U	7853AM11	80009 TIME BASE P I UNIT	80009	TIME BASE P I UNIT	089		0947
		IM15018001	15459 OSCILLOSCOPE PLUG IN PREAMPLIFIER	15459	OSCILLOSCOPE PLUG IN PREAMPLIFIER	089		1548
		0	80009 PLUG IN AMPLIFIER OPERATIONAL	80009	PLUG IN AMPLIFIER OPERATIONAL	089		1551
		RM15	80009 OSCILLOSCOPE	80009	OSCILLOSCOPE	089		1554
		RM33	80009 OSCILLOSCOPE	80009	OSCILLOSCOPE	089		1554
		RM564	80009 OSCILLOSCOPE	80009	OSCILLOSCOPE	089		1555
		RS113	80009 OSCILLOSCOPE MAINFRAME	80009	OSCILLOSCOPE MAINFRAME	089		4059
		RS403040	80009 OSCILLOSCOPE	80009	OSCILLOSCOPE	089		4076
		RS618	80009 OSCILLOSCOPE MAINFRAME	80009	OSCILLOSCOPE MAINFRAME	089		3286
		SC502	80009 OSCILLOSCOPE	80009	OSCILLOSCOPE	089		4079
		T	80009 TIME BASE PLUG IN	80009	TIME BASE PLUG IN	089		1557
		T912	80009 OSCILLOSCOPE	80009	OSCILLOSCOPE	089		4072
		T922	80009 OSCILLOSCOPE DUAL TRACE	80009	OSCILLOSCOPE DUAL TRACE	089		4053
		WD91C	49671 OSCILLOSCOPE	49671	OSCILLOSCOPE	089		1561
		1208	28480 OSCILLOSCOPE	28480	OSCILLOSCOPE	089		1517
		1220A	28480 OSCILLOSCOPE DUAL CHANNEL	28480	OSCILLOSCOPE DUAL CHANNEL	089		4057
		1A01AC34	28480 PLUG IN AMPLIFIER DUAL TRACE	28480	PLUG IN AMPLIFIER DUAL TRACE	089		1542
		1A02A	28480 PLUG-IN PREAMPLIFIER DUAL TRACE	28480	PLUG-IN PREAMPLIFIER DUAL TRACE	089		1469
		1A16A	28480 INDICATOR FREQUENCY PLUG IN SWEEP	28480	INDICATOR FREQUENCY PLUG IN SWEEP	089		1470
		1A21AC06	28480 SWEEP TIME BASE DELAY PLUG IN	28480	SWEEP TIME BASE DELAY PLUG IN	089		2566
		1A25AC03	28480 P I SAMPLING TIME BASE & DELAY	28480	P I SAMPLING TIME BASE & DELAY	089		2567
		1A0A	28480 OSCILLOSCOPE	28480	OSCILLOSCOPE	089		4799
		1A00	28480 OSCILLOSCOPE	28480	OSCILLOSCOPE	089		4798
		1A58R	28480 OSCILLOSCOPE	28480	OSCILLOSCOPE	089		1524
		211	80009 OSCILLOSCOPE PORTABLE	80009	OSCILLOSCOPE PORTABLE	089		1527
		213	80009 OSCILLOSCOPE DUAL TRACE	80009	OSCILLOSCOPE DUAL TRACE	089		4796
		224A	18778 OSCILLOSCOPE	18778	OSCILLOSCOPE	089		1528
		247	82573 OSCILLOSCOPE	82573	OSCILLOSCOPE	089		1529
		3A3	80009 P I OSCILLOSCOPE DUAL TRACE DIFF	80009	P I OSCILLOSCOPE DUAL TRACE DIFF	089		3327
		3A6	80009 P I OSCILLOSCOPE DUAL TRACE	80009	P I OSCILLOSCOPE DUAL TRACE	089		3326
		3A7	80009 P I OSCILLOSCOPE	80009	P I OSCILLOSCOPE	089		3325
		3A74	80009 AMPLIFIER FOUR TRACE	80009	AMPLIFIER FOUR TRACE	089		1564
		3B3	80009 OSCILLOSCOPE P I UNIT	80009	OSCILLOSCOPE P I UNIT	089		3324
		3B4	80009 OSCILLOSCOPE P I SAMPLING UNIT	80009	OSCILLOSCOPE P I SAMPLING UNIT	089		3328
		352	80009 PLUG IN DUAL TRACE SAMPLING	80009	PLUG IN DUAL TRACE SAMPLING	089		1621
		372	80009 P I SWEEP UNIT RANDOM SAMPLING	80009	P I SWEEP UNIT RANDOM SAMPLING	089		1565
		3777	80009 OSCILLOSCOPE P I SAMPLING SWEEP	80009	OSCILLOSCOPE P I SAMPLING SWEEP	089		3331
		3044	30669 OSCILLOSCOPE	30669	OSCILLOSCOPE	089		1534
		323	80009 OSCILLOSCOPE PORTABLE AC DC	80009	OSCILLOSCOPE PORTABLE AC DC	089		1537
		376	80009 PORTABLE OSCILLOSCOPE	80009	PORTABLE OSCILLOSCOPE	089		4579
		422125B	80009 OSCILLOSCOPE PORTABLE	80009	OSCILLOSCOPE PORTABLE	089		1538
		5A14M	80009 OSCILLOSCOPE AMPLIFIER P I	80009	OSCILLOSCOPE AMPLIFIER P I	089		4063

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## PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE YNDE DTS ETE SPECIFICATIONS

SPEC. NO.	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
OSCILLOSCOPE, DC-15MHZ	51	FUNCTIONALLY COMPATIBLE					
		5A10M	80009	AMPLIFIER DUAL TRACE PI	089		1567
		5A21M	80009	PI DIFF CURRENT PROBE AMPLIFIER	089		1566
		5010M	80009	OSCILLOSCOPE TIME BASE/AMPLIFIER PI	089		1568
		5012M	80009	TIME BASE DUAL PLUG-IN	089		5165
		514AD	80009	OSCILLOSCOPE	089		1493
		515	80009	OSCILLOSCOPE	089		1494
		515A	80009	OSCILLOSCOPE	089		1495
		516	80009	OSCILLOSCOPE	089		1496
		524AD	80009	OSCILLOSCOPE	089		1497
		52802	80009	MONITOR WAVEFORM	089		4851
		529	80009	MONITOR WAVEFORM	089		1498
		531A	80009	OSCILLOSCOPE	089		1499
		535A	80009	OSCILLOSCOPE	089		1500
		535AD	80009	AMPLIFIER DIFFERENTIAL	089		4505
		535AT	80009	TIME BASE PLUG-IN	089		4508
		536	80009	OSCILLOSCOPE	089		1501
		564	80009	OSCILLOSCOPE	089		1508
		7C7EM	80009	TRACER TRANSISTOR CURVE PI UNIT	089		1503
		7011	80009	DIGITAL DISPLAY UNIT PI	089		4804
		7013	80009	MULTIMETER DIGITAL PLUG IN	089		1504
		7011	80009	PLUG IN DUAL DELAY TIME	089		1628
		763305	80009	OSCILLOSCOPE	089		4860
OSCILLOSCOPE, DC-500MHZ	56	FUNCTIONALLY COMPATIBLE					
		AM6787PU	80009	PLUG IN SAMPLING UNIT	085		1506
		05193PU	28480	OSCILLOSCOPE	085		0784
		Y01161U	80009	SAMPLING SNEEP UNIT	085		3573
		51	80009	OSCILLOSCOPE SAMPLING HEAD	085		4864
		140AC71	28480	OSCILLOSCOPE	085		1544
		1411AC03	28480	AMPLIFIER SAMPLING P I	085		2505
		1424A	28480	TIME BASE SAMPLING PLUG IN	085		1659
		1430AC04	28480	SAMPLING REMOTE	085		2508
		1722A	28480	OSCILLOSCOPE DUAL CHANNEL	085		1477
		1810A	28480	SAMPLER	085		1663
		1816A	28480	SAMPLER	085		1665
		1817A	28480	SAMPLER	085		1666
		351	80009	TRACE SAMPLING DUAL P I	085		3370
		405	80009	OSCILLOSCOPE	085		4578
		7A19	80009	AMPLIFIER WIDEBAND PLUG IN	085		1576
		7892	80009	PLUG IN DUAL TIME BASE	085		1501
		7892A	80009	PLUG-IN, DUAL TIME BASE	085		4589
		7014	80009	COUNTER OSCILLOSCOPE DIGITAL PI	085		1505
		7904	80009	OSCILLOSCOPE	085		1458



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## GENERAL PURPOSE TIME OYS EYE SPECIFICATIONS

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
OSCILLOSCOPE, DUAL TRACE, DC- S2	FUNCTIONALLY COMPATIBLE						
AM1839RUSH	CA		80009	P I OSCILLOSCOPE DUAL TRACE	091		0004
AM1839USH	5354C		80009	OSCILLOSCOPE DUAL TRACE P I	091		0003
AM1842RUSH	1827		28569	PREAMPL	091		0008
AM4030U	1752A		28480	P I OSCILLOSCOPE DUAL TRACE	091		0016
AM4031AU	1750B		28480	P I UNIT DUAL TRACE	090		0018
AM4031U	1750A		28480	P I UNIT DUAL TRACE	091		0017
AM4610U	7608		30669	P I OSCILLOSCOPE DUAL CH	091		0020
AM6565U	7A15AM11		80009	AMPL P I UNIT	091		0021
AM6800U	7A18		80009	AMPLIFIER DUAL TRACE PLUG IN	091		1575
AM6948U	7A15A		80009	OSCILLOSCOPE AMPLIFIER PI	091		4862
ANUSH140	170A		28480	OSCILLOSCOPE	091		3612
ANUSH151	945MC		80009	OSCILLOSCOPE	091		0448
ANUSH164	5A1A		80009	OSCILLOSCOPE	091		4503
ANUSH184	RM45A		80009	OSCILLOSCOPE	091		0459
ANUSH186	175AM12		28480	OSCILLOSCOPE	091		0460
ANUSH218	647		80009	OSCILLOSCOPE	091		1512
ANUSH273	453		80009	OSCILLOSCOPE	091		0502
ANUSH281	180AEO2		28480	OSCILLOSCOPE	091		0505
ANUSH281A	1551OPT20		28480	OSCILLOSCOPE	091		0506
ANUSH281B	6510M		16152	OSCILLOSCOPE	091		0507
ANUSH281C	7603M115		80009	OSCILLOSCOPE	091		0508
ANUSH281D	1950		30669	OSCILLOSCOPE	091		0509
ANUSH281E	1950A		30669	OSCILLOSCOPE	091		0510
ANUSH296	180ERE02		28480	OSCILLOSCOPE	091		0511
ANUSH320V1	141AE15		28480	OSCILLOSCOPE	091		0528
ANUSH339	170080PT300		28480	OSCILLOSCOPE	091		0533
ANUSH50	LA239C		35225	OSCILLOSCOPE	091		0427
MX2930BUSH	1628H02		28480	OSC SC SUBASSY VERT CH DUAL TR PREAM	091		0742
MX2930CUSH	1804A2		28569	OSC SC SUBASSY VERT CH DUAL TR PREAM	091		0743
MX2930DUSH	K50430100		35225	OSC SC SUBASSY VERT CH DUAL TR PREAM	091		0744
OS172APUSH218	647A		80009	OSCILLOSCOPE	091		0783
OS193PAU	140H		28480	OSCILLOSCOPE	091		4023
PL1292U	82		80009	OSCILLOSCOPE UNIT P I DUAL TRACE	097		0798
PL1293U	1A2		80009	OSCILLOSCOPE P I DUAL TRACE	097		0799
PL1311U	2867		80009	OSCILLOSCOPE P I TIME BASE	091		0804
PL1378U	1803A		28480	PLUG IN DIFFERENTIAL AMPLIFIER	091		1479
SG055U	1020A		28480	OSCILLOSCOPE PLUG IN TIME BASE	091		0829
T01159U	7853A		80009	TIME BASE DUAL PLUG IN	091		1502
10503705H509	1421A		28480	GENERATOR PLUG IN TIME BASE	091		0949
	D75		80009	OSCILLOSCOPE	091		1545
	LA265A		35225	OSCILLOSCOPE	091		4073
	R7113		80009	OSCILLOSCOPE	091		4075
	R7603		80009	OSCILLOSCOPE DUAL BEAM	091		4081
	R760301		80009	OSCILLOSCOPE DUAL BEAM	090		4858
	W		80009	AMPLIFIER PLUG IN DIFFERENTIAL	091		1559
	LA5		80009	OSCILLOSCOPE DIFF COMPARTOR PI	091		1563

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## GENERAL PURPOSE INDF DTS ETC SPECIFICATIONS

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
OSCILLOSCOPE, DUAL TRACE, DC-	52	FUNCTIONALLY COMPATIBLE						
			1045A	28480	OSCILLOSCOPE PLUG-IN VERT RESPONSE	091		4074
			1402AC07	28480	P 1 AMP DUAL TRACE	091		2564
			141A	28480	OSCILLOSCOPE	091		1519
			141A	80009	OSCILLOSCOPE	091		1892
			1423A	28480	OSCILLOSCOPE PLUG IN TIME BASE	091		1471
			1707A	28480	OSCILLOSCOPE PORTABLE	091		1476
			1740A101	28480	OSCILLOSCOPE DUAL TRACE	091		4797
			1801A	28480	PLUG IN UNIT DUAL CHANNEL	091		1478
			1804A	28480	P1 VERT AMPL FOUR CHANNEL	091		1480
			1805A	28480	AMPLIFIER VERTICAL PI	091		4802
			1808A	28480	AMPLIFIER VERTICAL PI	091		4803
			1821A	28480	PLUG IN DELAY TIME BASE	091		1483
			265A	35225	OSCILLOSCOPE	091		1532
			434	80009	OSCILLOSCOPE PORTABLE	091		1519
			453A	80009	OSCILLOSCOPE	091		4576
			465	80009	OSCILLOSCOPE PORTABLE AC DC	091		1492
			4650H4005	80009	OSCILLOSCOPE PORTABLE AC DC	091		5162
			4650H440105	80009	OSCILLOSCOPE DUAL TRACE PORTABLE	091		4855
			4650407	80009	OSCILLOSCOPE PORTABLE	091		4580
			466	80009	OSCILLOSCOPE	091		3148
			545A	80009	OSCILLOSCOPE	091		1502
			547	80009	OSCILLOSCOPE	091		1503
			555	80009	OSCILLOSCOPE	091		1506
			556	80009	OSCILLOSCOPE	091		1507
			581	80009	OSCILLOSCOPE	091		1510
			585A	80009	OSCILLOSCOPE	091		1511
			7414	80009	AMPLIFIER CURRENT PROBE PLUG IN	091		1573
			7851	80009	PLUG IN TIME BASE	091		1580
			7403M	28480	OSCILLOSCOPE	091		2112
			7603	80009	OSCILLOSCOPE	091		1452
			765M	72314	OSCILLOSCOPE	091		1466
			765MA	92294	OSCILLOSCOPE ASSEMBLY	091		4202
			765MHF	30649	OSCILLOSCOPE	091		1515
			767H	72314	OSCILLOSCOPE	091		1468
OSCILLOSCOPE, DUAL TRACE, DC-	54	FUNCTIONALLY COMPATIBLE						
			7A26	80009	P 1 AMPL DUAL TRACE	090		0023
			7A13	80009	P1 AMPLIFIER DIFFERENTIAL COMPARATO	090		1572
			47507	80009	OSCILLOSCOPE PORTABLE	090		4581
			7623A	80009	OSCILLOSCOPE	085		0789
			R7704	80009	OSCILLOSCOPE STORAGE	090		4854
			1825A	28480	PLUG IN TIME BASE AND DELAY GENERAT	090		1484
			454A	80009	OSCILLOSCOPE PORTABLE	090		1491
			4541630	80009	OSCILLOSCOPE PORTABLE	090		2341
			7A12	80009	P1 DUAL CHANNEL AMPLIFIER	090		1571

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## PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE TMDF DTS ETE SPECIFICATIONS

SPECIFICATION NAME	SPFC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	CP LTR	ID NO.
OSCILLOSCOPE, DUAL TRACE, DC-	54	FUNCTIONALLY COMPATIBLE						
		7870		80009	PLUG IN TIME BASE	090		1577
		7871		80009	PLUG IN TIME BASE	090		1579
		7704A		80009	OSCILLOSCOPE	090		1456
OSCILLOSCOPE, DUAL TRACE, DC-	55	FUNCTIONALLY COMPATIBLE						
		7844		80009	OSCILLOSCOPE DUAL BEAM	080		1457
		2A63		80009 P 1	OSCILLOSCOPE DIFFERENTIAL AMP	080		0803
		85030		80009	OSCILLOSCOPE DUAL BEAM	080		4077
		SPR100		01113	OSCILLOSCOPE ELECTRONIC MARKER GENE	080		1556
		502A		80009	OSCILLOSCOPE DUAL BEAM	080		3649
		5103MD12		80009	OSCILLOSCOPE DUAL BEAM	080		1446
		551		80009	OSCILLOSCOPE DUAL BEAM	080		1505
		565		80009	OSCILLOSCOPE GENERAL PURPOSE DUAL B	080		1509
		7411		80009	PLUG IN AMPLIFIER SINGLE TRACE	080		4287
		7A24		80009	DUAL TRACE AMPLIFIER	080		3580
OSCILLOSCOPE, DUAL TRACE, STD	53	FUNCTIONALLY COMPATIBLE						
		475A		80009	OSCILLOSCOPE	085		0788
		141SC07		28480	OSCILLOSCOPE	094		1520
		184A		28480	OSCILLOSCOPE STORAGE	094		4801
		464		80009	OSCILLOSCOPE STORAGE	094		4852
		549		80009	OSCILLOSCOPE STORAGE	094		1504
		7213		80009	OSCILLOSCOPE STORAGE	094		1449
		7514		80009	OSCILLOSCOPE STORAGE	094		1451
		7613		80009	OSCILLOSCOPE STORAGE	094		4861
PHASE JITTER METER	7A	FUNCTIONALLY COMPATIBLE						
		48A3		50319	METER PHASE JITTER	037	D	1629
		0A410		65092	ANALYZER TRANSFER FUNCTION	037	D	1546
		T111200		50137	T S PHASE JITTER	037	D	2366
		1201A		50137	MONITOR HIT	037	D	2223
PHASE METER	60	FUNCTIONALLY COMPATIBLE						
		3575A		28480	GAIN/PHASE METER	038	C	1488
		250		05606	INDICATOR PHASE ANGLE	038	C	1530
		740		23338	METER PHASE ANGLE	038	C	1514
		880A		94668	FREQ TRANSLATION T S	038	C	1705

# PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE INDE QTS ETE SPECIFICATIONS

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SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
PARTIALLY COMPATIBLE							
FUNCTIONALLY COMPATIBLE							
POWER METER QY IN-LINE	62		W3	ANALYZER IMPEDANCE COMPONENT	038	C	1560
		ANURM120	SK130094				
		ANURM86	67C	54778 WATTMETER	082	C	0391
		ANURM86A	6733000	70998 WATTMETER	040	C	0373
		ME165C	52500	70998 WATTMETER	040	C	0374
		TS1285URM120	164FM	12991 STANDING WAVE RATIO POWER METER	063	C	0681
		164B		94668 WATTMETER	082	C	1138
				94668 WATTMETER	082	C	1767
PARTIALLY COMPATIBLE							
		ANURM167	6151A	70998 T S RF POWER	040	C	0399
		ANUSH298	43	70998 T S RADIO FREQ POWER	082	C	0512
		ME441U	432A	28480 METER POWER	041	C	0707
			42B	04901 POWER METER	082	M	4009
FUNCTIONALLY COMPATIBLE							
POWER METER SW	63						
		ANURM98	430CW477	28480 WATTMETER	040	C	0360
		ANUSH193	431B	28480 RADIO FREQUENCY POWER T S	041	C	3677
		ANUSH260	431C	28480 T S RADIO FREQ POWER	041	C	0493
		ME441U	432A	28480 METER POWER	041	C	0707
		ME51UP	GS15094	65092 T S FREQ COUNTER	041	C	0652
		TS3546U	460B	11332 POWER METER	041	C	4010
			X670	77327 METER POWER DRY CALORIMETER	041	C	1154
			430B	28480 METER POWER	041	C	1728
			431CY10	28480 POWER METER	041	M	4127
			432AE12	28480 POWER METER	041	M	4125
			432B	28480 METER POWER	041	C	1730
			435A	28480 METER POWER	041	C	1732
			440C	99H99 METER POWER	041	C	1733
			8478B	28480 THERMISTOR MOUNT	041	M	4745
PARTIALLY COMPATIBLE							
		ANUPH60		82199 T S RADAR	053	A	0325
		ANUPH60A	SHD319527	82199 T S RADAR	053	A	0326
		ANUPH167	6151A	70998 T S RF POWER	040	C	0399
		ANUSH161	457	11332 T S RADIO FREQ POWER	040	C	0452
		TS125AP		82057 T S RADIO FREQ POWER	040	C	0962
			428H	04901 WATTMETER RF	041	M	4866
			432A001	28480 METER POWER	041	M	4638
			436A	28480 WATTMETER	041	M	4643
			450	11332 WATTMETER	041	C	1734

**GENERAL PURPOSE TIME QTS FTF SPECIFICATIONS**

SPFC	SPECIFICATION NAME	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	MOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
63	POWER METER SHF	PARTIALLY COMPATIBLE						
			0553A		20400 ANALYZER SPECTRUM	061	C	1695
			0900B		20400 CALIBRATOR PEAK POWER	040	C	2579
91	Q METER	FUNCTIONALLY COMPATIBLE						
			TS617BU	TS617	51865 METER Q	042	E	1064
			TS617CU		51865 Q METER	042	E	1065
			TS617U	160A	04901 METER Q	042	E	1063
		PARTIALLY COMPATIBLE						
			TF1245		09553 Q METER	042	E	1558
			190A		20400 Q METER	042	E	1525
			260A		04901 Q METER	042	E	1531
			4362A		20400 Q METER	042	M	4572
94	SEMI-CONDUCTOR TEST SET	FUNCTIONALLY COMPATIBLE						
			ANUSH206	245MA	93346 T S SEMICONDUCTOR DEVICE	045	E	0472
			ANUSH206A	902470	20569 T S SEMICONDUCTOR DEVICE	045	E	0473
			TS1100AU		93346 T S SEMICONDUCTOR DEVICE	045	E	1132
			TS1100U		94668 T S SEMICONDUCTOR DEVICE	045	E	1131
			TS1036AU	219C	24624 T S TRANSISTOR	045	E	1169
			TS1036U	245HF	24624 T S SEMICONDUCTOR DEVICE	045	E	1170
			TS1036CU		34639 T S SEMICONDUCTOR DEVICE	045	E	1171
			TS1036DU	902501	20569 T S SEMICONDUCTOR DEVICE	045	E	3716
			TS1036U	219B	94668 T S SEMICONDUCTOR DEVICE	045	E	1168
			TS2006U	1122	14558 T S TRANSISTOR	045	E	1163
			TS268AU	C11603A	80077 T S CRYSTAL RECTIFIER	045	E	0989
			TS268BU	C11603A	80077 T S CRYSTAL RECTIFIER	045	E	0990
			TS268CU		74096 T S CRYSTAL RECTIFIER	045	E	0991
			TS268DU	J105	82054 T S CRYSTAL RECTIFIER	045	E	0992
			TS268EU	TS268	94518 T S CRYSTAL RECTIFIER	045	E	0993
			TS268U	TN101RL	80077 T S CRYSTAL RECTIFIER	045	E	0988
				215	20569 ANALYZER SEMICONDUCTOR	042	M	4820
				240	93346 T S SEMICONDUCTOR	045	E	2508
				300	94641 T S SEMICONDUCTOR DEVICE	045	E	3051
				530	04246 T S TRANSISTOR	042	M	4926
				070	20569 TESTER TRANSISTOR AND DIODE	045	E	2518
				090A	20569 TESTER TRANSISTOR	045	E	2519
		PARTIALLY COMPATIBLE						
			K1B		TESTER TUBE CONTRAST TRSF	072	B	2547
			575		80009 OSCILLOSCOPE TRANSISTOR CURVETRACER	045	E	2514
			576		80009 TRACER SEMICONDUCTOR CURVE	045	E	2515

# PART 1 CROSS-REFERENCE LIST

## GENERAL PURPOSE TMOE DTIS ETC SPECIFICATIONS

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SPECIFICATION NAME	SPEC M3	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
SEMI-CONDUCTOR TEST SET	94	PARTIALLY COMPATIBLE	7620	92860	I S SEMICONDUCTOR DEVICE	045	E	2696
SIGNAL GENERATOR, HF	03	FUNCTIONALLY COMPATIBLE						
		ANURM103	5MD630500	82199	GENERATOR SIGNAL	051	A	0784
		SG101WLR9V	3300481151	15770	GENERATOR SIGNAL	051	M	5110
			M1844	16469	GENERATOR SIGNAL	051	A	3276
		PARTIALLY COMPATIBLE						
		ANGPM15	CA740	82076	GENERATOR SIGNAL	050	A	0159
		ANGPM15A		82076	GENERATOR SIGNAL	050	A	0160
		ANGRM50	606A	28480	GENERATOR SIGNAL	051	A	0174
		ANGRM50A	11507A	28480	GENERATOR SIGNAL	051	A	0175
		ANGRM50B	606AC15	28480	GENERATOR SIGNAL	051	A	0176
		ANGRM50C	921A	33013	GENERATOR SIGNAL	051	A	0177
		ANURM25RD	315	21900	GENERATOR SIGNAL	051	A	0341
		ANURM25F	162D003	92428	GENERATOR SIGNAL	051	A	0342
		ANURM25H	152261	66150	GENERATOR SIGNAL	051	A	0343
		ANURM25J		26648	GENERATOR SIGNAL	051	A	0344
		ANURM93	245A	04901	VOLTAGE STANDARD	051	A	0377
		ANURM93A	245D	04901	VOLTAGE STANDARD	051	A	0378
		ANUSH205	650A	28480	GENERATOR SIGNAL	006	A	0469
		ANUSH205A	62051	25778	GENERATOR SIGNAL	006	A	0470
		ANUSH212	7560047001	13499	GENERATOR SIGNAL	051	A	0476
		ANUSH269	1310A	24655	GENERATOR SIGNAL	006	A	0498
		ANUSH272	191	80009	GENERATOR SIGNAL	051	A	0501
		ANUSH313	1211C	24655	GENERATOR SIGNAL	106	A	0523
		AC176		80063	GENERATOR SIGNAL	106	A	0546
		SG103BU	3701A	28480	GENERATOR SIGNAL	106	A	0894
		SG12U	658	15196	GENERATOR SIGNAL	106	A	0822
		SG20U	606A	14140	SIGNAL GENERATOR	051	A	0825
		SG479GRM50	606A	28480	GENERATOR SIGNAL	051	A	0856
		SG511U	606A	28480	GENERATOR SIGNAL HF	051	A	0858
		RC176M		94486	GENERATOR SIGNAL	106	A	2349
		F33A		07421	GENERATOR SIGNAL	006	A	1549
		1310H		24655	OSCILLATOR	006	A	1656
		134A		21461	OSCILLATOR AUDIO RF	047	A	3341
		190A		80009	GENERATOR SIGNAL	051	A	1632
		1708		80009	GENERATOR SINE WAVE	051	A	1897
		202H		28480	CONVERTER FREQ	051	A	1749
		5110B		28480	SYNTHESIZER DRIVER	051	A	1847
		606B		28480	GENERATOR SIGNAL	051	A	1643
		739AR		28460	I S FREQ RESPONSE	051	A	1871
		7808		77327	GENERATOR SIGNAL AM/FM	052	A	1684
		8640B		28480	SYNTHESIZED SIGNAL GENERATOR	107	A	2073

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PART 1 CROSS-REFERENCE LIST  
GENERAL PURPOSE IMDF OTS EYE SPECIFICATIONS

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
01	PARTIALLY COMPATIBLE	06601A 0700A	20480 RF SECTION 20480 GENERATOR SIGNAL P I SYNCHRONIZER		051 106	A A	2089 2081
04	FUNCTIONALLY COMPATIBLE						
ANGPH15			02076 GENERATOR SIGNAL		050	A	0159
ANGPH15A		CA740	02076 GENERATOR SIGNAL		050	A	0160
ANPPH1		212A	02076 GENERATOR PULSE		050	A	0239
ANUPH15			98179 GENERATOR PULSE		050	A	0316
ANUPH15A		11997	15196 GENERATOR PULSE		050	A	0317
ANUS255		792A	72314 GENERATOR SIGNAL		050	A	0490
ANUS255		115	80009 PULSE GENERATOR		050	A	3617
ANUS359		111	80009 GENERATOR PULSE		050	A	0541
ANUS374			15196 GENERATOR PULSE		050	A	0850
SG343UPH15A			06344 OSCILLATOR PULSE DELAY		050	A	0855
SG475AF594		100720	36004 GENERATOR PULSE		050	A	0827
SG638UPH10		15802	20480 GENERATOR PULSE		050	A	0830
SG69APPH1		212A	20480 GENERATOR PULSE		050	A	0818
SG69PPH1		211B	20480 GENERATOR SIGNAL		054	M	4809
SG668U		A31010	84585 GENERATOR PULSE		050	A	1059
TS592AUPH15			06692 GENERATOR PULSE		050	A	1058
TS592UPH15		302663F	04596 PULSER MIM		050	A	3251
		078	24141 GENERATOR PULSE		050	A	1912
		MP1	15933 PULSE GENERATOR		050	A	1914
		PG32	02199 GENERATOR PULSE		050	A	1803
		101	06811 GENERATOR PULSE		050	A	1874
		1103	06811 GENERATOR PULSE		050	A	4105
		1108	06811 GENERATOR PULSE		050	M	4106
		114A	24655 GENERATOR PULSE		050	A	1830
		1217C	13488 GENERATOR PULSE		050	A	1889
		132A	20480 GENERATOR PULSE		050	A	1850
		2178	20480 GENERATOR PULSE		050	A	3340
		219A	20480 GENERATOR PULSE		050	A	1852
		218A	20480 GENERATOR DIGITAL DELAY		050	A	1853
		222A	80009 GENERATOR PULSE		050	A	1853
		2901	80009 GENERATOR TIME MARK		047	A	1840
	PARTIALLY COMPATIBLE						
AMUR44			02199 T S RADIO		053	A	0350
ANUPH44A		1350000	94486 T S RADIO		053	A	0351
SG1105U		80138	20480 GENERATOR PULSE		050	A	2067
SG337U		51UARGMH	80138 GENERATOR PULSE		050	A	2576
SG166AU		5070R	80138 GENERATOR PULSE		050	A	0852
SG166U		570A	80138 GENERATOR PULSE		050	A	0851
TS155AUP			80034 GENERATOR SIGNAL		053	A	0973
TS1559UP			20480 GENERATOR SIGNAL		053	A	0974

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PART I CROSS-REFERENCE LIST  
GENERAL PURPOSE TME QTS EIF SPECIFICATIONS

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
SIGNAL GENERATOR, PULSE							
04 PARTIALLY COMPATIBLE							
TS155EUP							
	35X107	89194		GENERATOR SIGNAL	053	A	0975
	FG504T	80009		GENERATOR FUNCTION	047	M	4123
	K7006	28480		GENERATOR SIGNAL P I	050	A	3273
	PG501	80009		GENERATOR PULSE	050	M	4107
	PG502	80009		GENERATOR PULSE	050	M	4109
	PSX1	04423		GENERATOR PULSE	106	M	4108
	TG50101	80009		TIME MARK GENERATOR	047	A	1795
	1105A	28480		GENERATOR PULSE	050	A	2562
	1398	13488		GENERATOR PULSE	050	A	1890
	1720A	28480		GENERATOR PULSE	050	A	1838
	214AC38	28480		GENERATOR PULSE	050	A	3253
	216A	28480		GENERATOR PULSE	050	A	1851
	218	06811		GENERATOR PULSE	050	M	4874
	3328807	28480		SYNCHRONIZER FREQUENCY	047	M	4873
	62545	13222		GENERATOR SIGNAL	050	A	1848
	80058	28480		GENERATOR PULSE	050	A	1849
	8082A	28480		GENERATOR PULSE	050	M	4611
SIGNAL GENERATOR, SHF A							
05 FUNCTIONALLY COMPATIBLE							
ANURM61A							
	C015303007	99180		GENERATOR SIGNAL	053	A	0362
	01316G	90348		OSCILLATOR TRANSLATION	053	A	3544
	TS403AU	28480		GENERATOR SIGNAL	053	A	1010
	TS403BU	11242		GENERATOR SIGNAL	107	A	1011
	0015303006	28480		GENERATOR SIGNAL	053	A	1644
	6168						
PARTIALLY COMPATIBLE							
TS155AUP							
	35X107	80034		GENERATOR SIGNAL	053	A	0973
	H12	28480		GENERATOR SIGNAL	053	A	0974
	CK7006	89194		GENERATOR SIGNAL	053	A	0975
	U661159	77327		GENERATOR SIGNAL P I	107	A	1012
	2650A	77327		MULTIPLIER FREQ	053	A	3265
		28480		OSCILLATOR SYNCHRONIZER	053	A	3317
					053	A	1667
SIGNAL GENERATOR, SHF B							
04 FUNCTIONALLY COMPATIBLE							
ANURM170							
	619C	28480		GENERATOR SIGNAL	053	A	0400
	618DE106	28480		GENERATOR SIGNAL	053	A	0358
	618B	28480		GENERATOR SIGNAL	053	A	0359
	C674100	02572		GENERATOR SIGNAL	053	A	0360
	1220A5	24655		GENERATOR SIGNAL	053	A	0868
	SG676C	28480		GENERATOR SIGNAL	053	A	1864
	618BR						





## GENERAL PURPOSE TIME OF SPECIFICATIONS

SPFC NO	SPECIFICATION NAME	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
			PARTIALLY COMPATIBLE					
	SIGNAL GENERATOR, SHF H		A 7006		77227 GENERATOR SIGNAL P I	053	A	3246
			FUNCTIONALLY COMPATIBLE					
12			CX7006 K661159 SC800 U661159 U7006 B672A		77327 GENERATOR SIGNAL P I 77327 MULTIPLIER FREQ 29444 GENERATOR SIGNAL MICROWAVE 77327 MULTIPLIER FREQ 77327 GENERATOR SIGNAL P I 28480 GENERATOR SIGNAL	053 053 053 053 053 053	A A M A A M	3265 3274 4101 3317 3316 4878
			PARTIALLY COMPATIBLE					
			AMURN52 AMURN52A AMURN52B AMURN61A AMUSH190 AMUSH48 TS403AU TS403BU		28480 GENERATOR SIGNAL 28480 GENERATOR SIGNAL 02572 GENERATOR SIGNAL 09180 GENERATOR SIGNAL 28480 GENERATOR SIGNAL 28480 GENERATOR SIGNAL 28480 GENERATOR SIGNAL 11242 GENERATOR SIGNAL 28480 OSCILLATOR SYNCHRONIZER 28480 GENERATOR SIGNAL 28480 RF PLUG IN UNIT	053 053 053 053 053 053 053 107 053 053 053	A A A A E A A A A A M	0358 0359 0360 0362 0465 0426 1010 1011 1667 1864 4620
			FUNCTIONALLY COMPATIBLE					
	SIGNAL GENERATOR, THERMAL NOI		SG453BU SG453U		24655 GENERATOR THERMAL NOISE 24655 GENERATOR SIGNAL THERMAL NOISE 06819 GENERATOR NOISE	055 055 055	A M A	1833 4102 1924
			PARTIALLY COMPATIBLE					
			PANF175 1C115 1402 3408 3722A		12678 INDICATOR NOISE FIGURE AUTOMATIC 03782 MICROWAVE IMPULSE SOURCE 27591 GENERATOR SIGNAL 28480 METR NOISE FIGURE 28480 NOISE GENERATOR	055 050 055 033 055	M A M C M	4130 1878 4103 1774 4610
			FUNCTIONALLY COMPATIBLE					
64	SIGNAL GENERATOR, TRACKING		SG1122U SG1125U		28480 TRACKING GENERATOR/COUNTER 28480 GENERATOR TRACKING	056 006	C C	3585 1690

# PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE TMDR QTS ETC SPECIFICATIONS

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SPEC	NAME	TYPE	DESIGNATOR	MFR.	MODEL NO.	MFR.	CODE	NOMENCLATURE	FAMILY	GP	CODE	LTR	ID NO.
PARTIALLY COMPATIBLE													
AMUSM306V						94668	T S RADIO		110	C	0515		
AMUSM306V1					3055	94668	T S RADIO		110	C	0516		
TS2721U					305	94668	COMM TRANSMISSION MEASUREMENT SYSTE		110	C	2433		
					305A	94668	TRANSMISSION MEASUREMENT SYSTEM		110	C	2380		
					313A	28480	OSCILLATOR TRACKING		056	C	1660		
FUNCTIONALLY COMPATIBLE													
AMURN56					612A	28480	GENERATOR SIGNAL		107	M	4596		
					M1674	16469	GENERATOR RF POWER P 1		107	A	3279		
					P7006	77327	GENERATOR SIGNAL P 1		107	A	3283		
PARTIALLY COMPATIBLE													
AMURN149					SM0630000	82199	GENERATOR SIGNAL		107	A	0396		
AMURN49						35225	GENERATOR SIGNAL		107	A	0356		
AMURN49A					X00000149	35225	GENERATOR SIGNAL		107	A	0357		
AMURN64A1					C01604001	03877	GENERATOR SIGNAL		107	A	0365		
AMURN64A2					031204000	12165	GENERATOR SIGNAL		107	A	0366		
AMURN641						76809	GENERATOR SIGNAL		107	A	0363		
AMURN642					C016104001	76809	GENERATOR SIGNAL		107	A	0364		
AMUSM213					8614A	28480	GENERATOR SIGNAL		107	A	0477		
AMUSM213A					8614B	28480	GENERATOR SIGNAL		107	A	0478		
AMUSM251					1209C	24655	GENERATOR SIGNAL		107	A	0758		
AMUSM312					1362	24655	GENERATOR SIGNAL		107	A	0522		
SG340AG					612A	28480	GENERATOR SIGNAL		107	A	0449		
SG97ERC					614A	28480	GENERATOR SIGNAL		107	A	0837		
TS419U					M12		GENERATOR SIGNAL		107	A	1012		
					SG504	80009	GENERATOR SIGNAL		106	M	4096		
					15122	16469	POWER GENERATOR (CALIBRATION)		107	M	4093		
					470A1000	94668	GENERATOR SIGNAL		107	A	1642		
					8660B	28480	SYNTHESIZED SIGNAL GENERATOR		107	A	2073		
					86602A	28480	RF SECTION		107	A	2090		
					86602B	28480	P 1 UNIT RF SECTION		107	A	3587		
					86631A	28480	AUXILIARY SECTION		107	A	2091		
					86632A	28480	MODULATION SECTION		107	A	2092		
					86632B	28480	GENERATOR SIGNAL MODULATION SECTION		106	N	4877		
FUNCTIONALLY COMPATIBLE													
AMURN64A1					C01604001	03877	GENERATOR SIGNAL		107	A	0365		
AMURN64A2					031204000	12165	GENERATOR SIGNAL		107	A	0366		
AMURN641						76809	GENERATOR SIGNAL		107	A	0363		
AMURN642					C016104001	76809	GENERATOR SIGNAL		107	A	0364		
AMUSM213					8614A	28480	GENERATOR SIGNAL		107	A	0477		
AMUSM213A					8614B	28480	GENERATOR SIGNAL		107	A	0478		

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PART I CROSS-REFERENCE LIST  
GENERAL PURPOSE INDF OTS ETE SPECIFICATIONS

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
SIGNAL GENERATOR, VHF A	17	PARTIALLY COMPATIBLE						
			SG504	80009	GENERATOR SIGNAL	106	N	4096
			15122	16469	PUMER GENERATOR (CALIBRATION)	107	N	4093
			470A1000	94668	GENERATOR SIGNAL	107	A	1642
			6060	28480	GENERATOR SIGNAL	051	A	1643
			7505138	33013	GENERATOR SIGNAL	106	A	1872
			8640A	28480	GENERATOR SIGNAL	106	A	1591
			8640B001	28480	GENERATOR SIGNAL	106	A	1593
			8660B	28480	SYNTHESIZED SIGNAL GENERATOR	107	A	2073
			86601A	28480	RF SECTION	051	A	2089
			8708A	28480	GENERATOR SIGNAL P I SYNCHRONIZER	106	A	2081
SIGNAL GENERATOR, VHF B	18	FUNCTIONALLY COMPATIBLE						
				13094	TEST OSCILLATOR	106	A	0240
			310141	79300	GENERATOR SIGNAL	106	A	0368
			608E	28480	GENERATOR SIGNAL	106	A	1073
			202H	28480	GENERATOR SIGNAL	106	A	0404
			294	21900	GENERATOR SIGNAL	106	A	0345
					GENERATOR SIGNAL	106	A	0346
			136015	87793	GENERATOR SIGNAL	106	A	0347
			100190	15196	GENERATOR SIGNAL	106	A	0069
				07450	GENERATOR SIGNAL	106	A	0355
			1215C	24655	GENERATOR SIGNAL	106	A	0367
			1211C	24655	GENERATOR SIGNAL	106	A	0487
			60RDE02	24655	GENERATOR SIGNAL	106	A	0523
			60RDE02	28480	GENERATOR SIGNAL	106	A	0421
			100713	25778	GENERATOR SIGNAL	106	A	0422
				80063	GENERATOR SIGNAL	106	M	4041
			3701A	28480	GENERATOR SIGNAL	106	A	0546
			8640B	28480	GENERATOR SIGNAL AM-FM	106	A	0894
			8640RPT004	28480	GENERATOR SIGNAL	106	A	2071
				15196	GENERATOR SIGNAL	106	A	2072
			608C	16636	GENERATOR SIGNAL	106	A	0822
			M14	28480	GENERATOR SIGNAL	106	A	0823
			16850	00781	GENERATOR SIGNAL	106	A	0843
			470A500	00781	GENERATOR SIGNAL	106	A	0828
			608F	98329	GENERATOR SIGNAL	106	A	0829
			3700B	28480	VHF SIGNAL GENERATOR	106	A	0880
				28480	GENERATOR SIGNAL	106	A	0883
			5M8334504	04423	GENERATOR SIGNAL	106	A	0885
			608C	28480	GENERATOR SIGNAL	106	A	1032
			RC376H	94486	GENERATOR SIGNAL	106	A	1034
			MEC100C	16469	GENERATOR SIGNAL	106	A	1031
			M1854		GENERATOR SIGNAL	106	M	2349
					GENERATOR SIGNAL	106	A	4120
					GENERATOR SIGNAL	106	A	3277

# PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE TMDF OTS ETE SPECIFICATIONS

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SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	CP LTR	ID NO.
SIGNAL GENERATOR, VHF R FUNCTIONALLY COMPATIBLE							
	M1864		16469	GENERATOR RF POWER P I	106	A	3278
	TF1066A		09553	SIGNAL GENERATOR	106	A	1612
	TF1066B6		09553	GENERATOR SIGNAL	106	A	1419
	TF1247		09553	OSCILLATOR	106	A	1920
	102A		04901	GENERATOR SIGNAL	106	A	1630
	1066B6		09553	GENERATOR SIGNAL FM	106	A	1825
	1215B		24655	OSCILLATOR UNIT	106	A	1829
	202E		28480	GENERATOR SIGNAL	106	A	1635
	211A		28480	GENERATOR SIGNAL	106	A	1638
	608CR		28480	GENERATOR SIGNAL VHF	106	A	3366
	750513B		33013	GENERATOR SIGNAL	106	A	1872
	8640A		28480	GENERATOR SIGNAL	106	A	1591
	86408001		28480	GENERATOR SIGNAL	106	A	1593
	8654A		28480	GENERATOR SIGNAL VHF	106	A	1594
	86632B		28480	GENERATOR SIGNAL MODULATION SECTION	106	M	4877

## PARTIALLY COMPATIBLE

ANGPM15		82076	GENERATOR SIGNAL	050	A	0159
ANGPH15A	CA74B	82076	GENERATOR SIGNAL	050	A	0160
ANGPM50	606A	28480	GENERATOR SIGNAL	051	A	0174
ANGPM50A	11507A	28480	GENERATOR SIGNAL	051	A	0175
ANGPM50B	606AC15	28480	GENERATOR SIGNAL	051	A	0176
ANGPM50C	921A	33013	GENERATOR SIGNAL	051	A	0177
AMURM93	245A	04901	VOLTAGE STANDARD RADIO FREQ	051	A	0377
AMURM93A	245D	04901	VOLTAGE STANDARD RADIO FREQ	051	A	0378
AMUSH251	1209C	24655	GENERATOR SIGNAL	107	A	0758
AMUSH272	191	80009	GENERATOR SIGNAL	051	A	0501
AMUSH312	1362	24655	GENERATOR SIGNAL	107	A	0522
SG340AG	612A	28480	GENERATOR SIGNAL	107	A	0849
SG346AU	5070B	80138	GENERATOR PULSE	050	A	0852
SG366U	570A	80138	GENERATOR PULSE	050	A	0851
TS418U		04901	SIGNAL GENERATOR	107	M	1152
	R1200A	01537	FM SERVICE MONITOR	106	M	4116
	SG503	80009	GENERATOR SIGNAL	108	M	4099
	6039A	89536	FREQUENCY SYNTHESIZER	106	M	4599
	606B	28480	GENERATOR SIGNAL	051	A	1643
	866A01040509	28480	GENERATOR SIGNAL	106	M	5186
	8660C	28480	R.F. SYNTHESIZER	106	M	4635
	86602B	28480	P I UNIT RF SECTION	107	A	3587
	86631B	28480	AUXILIARY SECTION	107	A	2091
	86632A	28480	MODULATION SECTION	107	A	2092
	86633B	28480	AM/FM MODULATION	106	M	4619
	8708A	28480	GENERATOR SIGNAL P I SYNCHRONIZER	106	A	2081

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## PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE INDF OTS ETE SPECIFICATIONS

SPEC	MD	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
SPECTRUM ANALYZER	BASEBAND	66	FUNCTIONALLY COMPATIBLE					
PARTIALLY COMPATIBLE								
IP1018U	360B			94668	ANALYZER SPECTRUM	060	M	4086
TS1071FPM	LCAL			06101	ANALYZER SPECTRUM	060	C	3737
TS2333USM	310A			28480	ANALYZER SPECTRUM	060	C	1192
TS3150U	RT4SUR3			03702	ANALYZER SPECTRUM	060	C	1222
TS3170AU	360B			94668	ANALYZER SPECTRUM	060	C	3352
PARTIALLY COMPATIBLE								
ANUSH306V				94668	I S RADIO	110	C	0515
ANUSH306V1	3055			94668	I S RADIO	110	C	0516
ANUSH424	3040A			28480	NETWORK ANALYZER	059	C	1668
PL1307U	0556A			28480	ANALYZER SPECTRUM LF TUNING SECTION	081	A	2642
PL1308U	0552B			28480	ANALYZER SPECTRUM	061	C	1166
TS1030AU	302A			28480	ANALYZER WAVE	075	M	4773
TS1030DU	302AR			28480	ANALYZER SPECTRUM	059	C	1167
TS2721U	305			94668	COMM TRANSMISSION MEASUREMENT SYSTE	110	C	2433
	TS4W			02199	SPECTRUM ANALYZER	062	M	4005
	305A			94668	TRANSMISSION MEASUREMENT SYSTEM	110	C	2380
FUNCTIONALLY COMPATIBLE								
ANUPH133	5815A			03702	ANALYZER SPECTRUM	061		0337
TS3620V1U	3500A			28480	SPECTRUM ANALYZER	059	C	1670
TS615AU	300A			28480	ANALYZER SPECTRUM	059	C	1061
TS615BU	300A			28480	ANALYZER SPECTRUM	059	C	1062
TS615U	736A			24655	ANALYZER SOUND	059	C	1060
	L3			80009	MODULE IMPEDENCE	061		4088
	1558A			24655	ANALYZER NOISE AUDIO FREQUENCY	059	C	1661
	3570A			28480	NETWORK ANALYZER	059	C	1669
PARTIALLY COMPATIBLE								
ANUSH424	3040A			28480	NETWORK ANALYZER	059	C	1668
PL1307U	0556A			28480	ANALYZER SPECTRUM LF TUNING SECTION	081	A	2642
PL1308U	0552B			28480	ANALYZER SPECTRUM	061	C	1166
TS1030AU	302A			28480	ANALYZER WAVE	075	M	4773
TS1030DU	302AR			28480	ANALYZER SPECTRUM	059	C	1167
	SPALD			03702	ANALYZER SPECTRUM	061	C	1608
	3591A			28480	VOLTMETER FREQ SELECTIVE	110	C	1947
	3594A			28480	OSCILLATOR SWEPPING LOCAL PLUG IN	059	C	1671
	5L4N			80009	SPECTRUM ANALYZER	059	N	4866

## PART I CROSS-REFERENCE LIST

**PART I CROSS-REFERENCE LIST**

**GENERAL PURPOSE INDE NTS ETC SPECIFICATIONS**

SPEC. NO.	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
58	FUNCTIONALLY COMPATIBLE						
ANUPH110	LA10M		35225	ANALYZER SPECTRUM	061	C	0820
ANUPH58	SCDL16906		80063	ANALYZER SPECTRUM	061	C	0324
ANUPH84	8110026		28480	ANALYZER SPECTRUM	061	C	0328
ANUPH134A	55R3B		80052	TEST SET RADIO	061	M	4401
ANUSM307V			28480	ANALYZER NETWORK	062	C	0517
ANUSM307V1	8410AE14		28480	ANALYZER NETWORK	062	C	0518
ANUSM360V	491		80009	ANALYZER SPECTRUM	061	C	0540
CV3A27V1U	3730A		28480	ANALYZER SPECTRUM	062	C	3761
F1414U	8445B		28480	PRESSECTOR AUTOMATIC TRACKING	062	C	1692
IP1216PCR	141T		28480	ANALYZER SPECTRUM DISPLAY SECTION	061	C	1699
IP173AU	588A		03782	INDICATOR PANORAMIC	061	C	0549
IP173BU	588A		03782	INDICATOR PANORAMIC	061	C	0600
IP173CU			03782	INDICATOR PANORAMIC	061	C	0582
IP173U	5A8		03782	INDICATOR PANORAMIC	061	C	0598
PL1391U	7L5		80009	SPECTRUM ANALYZER	059	C	1625
PL1392U	7L12		80009	SPECTRUM ANALYZER PLUG IN	061	C	1626
PL1399U	8553B		28480	ANALYZER SPECTRUM RF SECTION	061	C	1696
PL1400U	8555A		28480	SPECTRUM ANALYZER	062	C	3586
PL1406U	8554B		28480	SPECTRUM ANALYZER RF SECTION	061	C	1697
TS148UP	81398		91820	SPECTRUM ANALYZER	062	M	0915
TS3237U	725		66811	ANALYZER SPECTRUM	061	C	1238
TS622AU	13500500		77327	GENERATOR SIGNAL	062	C	1073
TS622U	PL2651		94486	GENERATOR SIGNAL	062	C	1066
	PSA231		23369	ANALYZER SPECTRUM PLUG IN	061	C	1603
	8491		80009	ANALYZER SPECTRUM RACKMOUNTED	062	C	3284
	SA70A		03782	ANALYZER SPECTRUM	061	C	1605
	SA84VA		82199	ANALYZER SPECTRUM	062	C	1606
	597		03782	ANALYZER SPECTRUM	062	C	1607
	SPA325A		03782	ANALYZER SPECTRUM	061	C	1609
	1L10		80009	ANALYZER SPECTRUM PLUG IN	061	C	1617
	1L20		80009	ANALYZER SPECTRUM PLUG IN	062	C	1618
	1401A323P7		80009	SPECTRUM ANALYZER	061	M	4868
	7L13		80009	ANALYZER SPECTRUM	061	C	1627
	70751		12678	ANALYZER SPECTRUM	061	C	1649
	84105210		28480	ANALYZER MICROWAVE NETWORK	062	C	1686
	84105310		28480	ANALYZER MICROWAVE NETWORK	062	C	1687
	8505A		28480	ANALYZER NETWORK	061	M	4594
	851A8551A		28480	ANALYZER SPECTRUM	061	C	3760
	85518		28480	ANALYZER SPECTRUM	062	M	4592
	8552A		28480	ANALYZER SPECTRUM IF SECTION PI	061	C	1693
	8553A		28480	ANALYZER SPECTRUM	061	C	1695
	8554L		28480	ANALYZER SPECTRUM TUNING SECTION	061	C	1698
	8554L85522AM06		28480	ANALYZER SPECTRUM PLUG-IN	061	C	1600



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## GENERAL PURPOSE INSTRUMENT SPECIFICATIONS

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
PARTIALLY COMPATIBLE							
ANUPH04A	4152161		25778	ANALYZER SPECTRUM	061	C	0329
ANUSH424	3040A		28480	NETWORK ANALYZER	059	C	1668
TS35450	22010C		00752	ANALYZER NETWORK	061	M	5109
	SPALD		03782	ANALYZER SPECTRUM	061	C	1608
	TSAN		82199	SPECTRUM ANALYZER	062	M	4005
	1405		80009	ANALYZER TV SIDEBANDS	068	M	4884
	3594A		28480	OSCILLATOR SNEEPIING LOCAL PLUG IM	059	C	1671
	8407A		28480	ANALYZER NETWORK MAINFRAME	061	C	1685
	8412A		28480	DISPLAY PHASE-MAGNITUDE	061	C	1688
	8414A		28480	POLAR DISPLAY	062	C	1689
	8445A		28480	PRESECTOR AUTOMATIC	062	C	1691
	8528017		28480	ANALYZER SPECTRUM IF SECTION P1	061	C	1694

## STANDING WAVE RATIO (SWR) MET 69 FUNCTIONALLY COMPATIBLE

ANUPH100	4158		28480	METER STANDING WAVE RATIO	063	C	1348
ANUSH261	415E		28480	METER STANDING WAVE RATIO	063	M	4570
ANUSH322V1	219L		77327	DETECTOR STANDING WAVE	063	C	0530
ANUSH322V2	219		77327	DETECTOR STANDING WAVE	063	C	0531
ANUSH322V3	3703B		77327	DETECTOR STANDING WAVE	063	C	0532
ANUSH37	415A		28480	MEASURING SET STANDING WAVE RATIO	063	C	0415
ANUSH37A	415E		28480	MEASURING SET STANDING WAVE RATIO	063	C	0416
ANUSH37B	415E		28480	MEASURING SET STANDING WAVE RATIO	063	C	0417
ANUSH37C	809B		28480	MEASURING SET STANDING WAVE RATIO	063	C	0418
ANUSH37D	415E001		28480	MEASURING SET STANDING WAVE RATIO	063	C	0419
ANUSH37E	236		77327	MEASURING SET STANDING WAVE RATIO	063	C	0420
IM157AU	4158H10		28480	STANDING WAVE RATIO INDICATOR	063	C	0592
IM157BU	415D		28480	INDICATOR STANDING WAVE RATIO	063	C	0593
IM157CU	8013A		06473	STANDING WAVE RATIO INDICATOR	063	C	0594
IM157EU	227DS37		77327	STANDING WAVE RATIO INDICATOR	063	C	0595
IM157U	415B		28480	STANDING WAVE RATIO INDICATOR	063	C	0591
IM175U	351		11332	STANDING WAVE RATIO INDICATOR	063	C	0596
	415Y10		28480	METER STANDING WAVE RATIO	063	C	3320
	416A		28480	INDICATOR STANDING WAVE RATIO	063	C	1349

## PARTIALLY COMPATIBLE

IM175BU	351		11332	STANDING WAVE RATIO INDICATOR	063	C	0597
MF165C	52500		12991	STANDING WAVE RATIO PUMF METER	063	C	0681
	7L1R		80009	SPECTRUM ANALYZER P1	062	M	4869

## STROBOSCOPE, 95 FUNCTIONALLY COMPATIBLE

	1531AR		24655	TACHOMETER STROBOSCOPE	065	E	1717
	1538A		24655	STROBOSCOPE	065	E	1718
	1543		24655	STROBOSCOPE	065	M	4116

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GENERAL PURPOSE TMOE DIS ETC SPECIFICATIONS

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
95	FUNCTIONALLY COMPATIBLE	15439700	24655	STROBOSCOPE	065	M	4137
	PARTIALLY COMPATIBLE						
	TS805AU	6310L	24655	STROBOSCOPE	065	E	1109
	TS805BU	510AL	83490	STROBOSCOPE	065	E	1110
	TS805CU	451AL	00708	STROBOSCOPE	065	E	1111
	TS805DU	510B	83490	STROBOSCOPE	065	E	1112
	TS805U	631B	24655	STROBOSCOPE	065	E	1108
		TFCS3091	94117	TEST CONSOLE CYROSCOPE	117	M	4426
		135M9	99866	TRACKER BLADE	065	E	3448
20	FUNCTIONALLY COMPATIBLE						
	PL1241AUSH308V	86988	28480	P I UNIT ELEC TEST EQUIP	052	A	0794
	PL1241BUSH308	86988001	28480	RF P I SWEEP GENERATOR	052	A	3590
	TS452AU		34184	GENERATOR SIGNAL	106	A	1024
	TS452BU		36004	GENERATOR SIGNAL	106	A	1025
	TS452CU		36004	GENERATOR SIGNAL	106	A	1026
	TS452DU		36004	GENERATOR SIGNAL	106	A	1027
	TS452EU		36004	GENERATOR SIGNAL	106	A	1028
	TS452U		50304	GENERATOR SIGNAL	106	A	1023
		LSXA	04423	GENERATOR SWEEP	108	A	1909
		3744A	28480	SWEPPER BASE BAND	052	N	4593
		8601A	28480	GENERATOR SWEEP	052	A	2069
	PARTIALLY COMPATIBLE						
	ANUSH203	912423	01113	GENERATOR SWEEP SIGNAL	109	A	0467
	ANUSH207A	200441	23042	GENERATOR SWEEP SIGNAL	109	A	0468
	SG407U	1000	80138	GENERATOR SWEEP	109	A	0853
	SG575U	1F866A	80138	GENERATOR SWEEP	108	A	0861
	SG593U	9008	01113	GENERATOR SWEEP	052	A	0863
	SG601U	866A	80138	GENERATOR SWEEP	052	A	0870
	SG888U	200315	23042	GENERATOR SWEEP	109	A	0881
	SG92U	110A	80138	GENERATOR SWEEP	052	A	0836
		CP932B	80138	OSCILLATOR SWEEP	052	M	4110
		112D	04423	GENERATOR SWEEP	109	A	1886
		20001	04423	GENERATOR SWEEP	108	A	1839
		3130B	28480	AUTOMATIC SYNTHESIZER	052	M	4633
		86210A	28480	RF PLUG IN	109	M	4616
		8690A	28480	OSCILLATOR SWEEP	052	A	2074

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## GENERAL PURPOSE INDE OTS ETE SPECIFICATIONS

SPEC NO	TYPE	DESIGNATOR	MFR.	MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
21	FUNCTIONALLY COMPATIBLE								
ANUSH274		220			10786	GENERATOR SWEEP	049	A	0503
ANUSH308V1		6908BE75			20480	GENERATOR SWEEP	049	A	0519
ANUSH47		625A			20480	GENERATOR SWEEP	049	A	1865
NR764APUSH		6690B			20480	OSCILLATOR SWEEP	049	A	0756
PL1240AUSH308		6693B001			20480	GENERATOR RF PLUG-IN	049	A	1904
PL1240USH308		8693B			20480	SWEEP GENERATOR PI	049	N	4768
PL1240USH308V		8693BH01			20480	GENERATOR SWEEP P I	049	N	4604
PL1243USH308		8706A			20480	ELEC TEST EQUIP P I UNIT	049	A	0796
PL1304USH308		8694B			20480	P I UNIT ELEC TEST EQUIP	049	A	0801
SC1121V1U		8620C			20480	SWEEP OSCILLATOR	056	A	3714
SG735URM		8616A			20480	GENERATOR SIGNAL	049	A	3733
S5907U		6310B51			03782	GENERATOR SWEEP	109	A	0890
S6990U		694DH01			20480	GENERATOR SWEEP	049	A	0891
		AL650			03782	GENERATOR SWEEP ASSEMBLY	049	N	4111
		404			92110	MICROWAVE SWEEP SIGNAL GENERATOR	049	A	1857
		641B			03782	OSCILLATOR SWEEP	109	A	1646
		641K			03782	GENERATOR SWEEP	109	A	1866
		694C			20480	OSCILLATOR SWEEP	049	A	1870
		694CH01			20480	OSCILLATOR SWEEP	049	A	1905
		8620A			20480	SWEEP OSCILLATOR	049	A	2070
		8621A			20480	RF PLUG-IN	049	N	4625
		86220AH00			20480	SINGLE RAND P I	049	A	2088
		86230RH00			20480	SINGLE RAND P I	049	A	2084
		86241AH00			20480	SINGLE RAND P I	049	A	2085
		86242AH00			20480	SINGLE RAND P I	049	A	2086
		86250RH00			20480	SINGLE RAND P I	049	A	2087
		86290A			20480	RF PLUG IN	049	N	4617
		86320A			20480	RF PLUG-IN MODULE	049	N	4626
		86330A			20480	RF PLUG-IN MODULE	049	N	4629
		86341B			20480	RF PLUG-IN MODULE	049	N	4627
		86342A			20480	RF PLUG-IN MODULE	049	N	4628
		86350A			20480	RF PLUG-IN MODULE	049	N	4630
		8690BH12			20480	OSCILLATOR SWEEP	049	N	4112
		8691A			20480	RND SWEEP PLUG IN	049	N	4615
		8692A			20480	SWEEP GENERATOR RND PLUG-IN	049	N	4613
		8693AH17			20480	OSCILLATOR SWEEP PI	049	N	4113
PARTIALLY COMPATIBLE									
ANUSH222		SH2000			04423	GENERATOR SIGNAL	109	A	0481
01637U		E2H			04423	P I HEAD SWEEP GENERATOR	109	A	1901
PL1242USH308		8699B			20480	OSCILLATOR SWEEP P I	049	A	0795
PL1356U		8693A			20480	RF UNIT	049	A	2075
SG407U		1000			80138	GENERATOR SWEEP	109	A	0853
SG480PUSH219		SH2000			04423	GENERATOR SIGNAL	052	A	0871
		SG800A			29644	GENERATOR SIGNAL	049	N	4118

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## GENERAL PURPOSE TIDE OTS ETE SPECIFICATIONS

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SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NAME/CLATURE	FAMILY CODE	GP LTR	ID NO.
SWEEP GENERATOR, SHF								
21 PARTIALLY COMPATIBLE								
			4310AK16P	93459	GENERATOR SWEEP RF	049	M	4602
			650	88669	OSCILLATOR SWEEP	049	M	4612
			6600	88669	GENERATOR SIGNAL	049	M	4603
			86222A	28480	RF PLUG IN	049	M	4618
			86222R02	28480	GENERATOR SIGNAL	049	M	4875
			8690A	28480	OSCILLATOR SWEEP	052	A	2074
			8695A	28480	SWEEP OSCILLATOR P I	049	A	2077
			8696A	28480	GENERATOR SWEEP RF P I	049	A	2079
			8697A	28480	GENERATOR SWEEP RF P I	049	A	1569
SWEEP GENERATOR, UNF								
22 FUNCTIONALLY COMPATIBLE								
			912423	01113	GENERATOR SWEEP SIGNAL	109	A	0467
			200441	23042	GENERATOR SWEEP SIGNAL	109	A	0468
			SM2000	04423	GENERATOR SIGNAL	109	A	0479
			SM2000	04423	GENERATOR SIGNAL	109	A	0481
			380A	80138	GENERATOR SWEEP	108	A	0847
			601	01113	GENERATOR SWEEP	108	A	0884
			LSX41	04423	GENERATOR SIGNAL	108	A	1910
			SH1	04423	GENERATOR SWEEP	109	A	1916
			8600A	28480	GENERATOR COUNTER/MARKER	108		2068
PARTIALLY COMPATIBLE								
			SM2000	04423	GENERATOR SIGNAL	109	A	0480
			E2M	04423	P I HEAD SWEEP GENERATOR	109	A	1901
			8699B	28480	OSCILLATOR SWEEP P I	049	A	0795
			L6M	04423	P I HEAD SWEEP GENERATOR	108	A	0808
			1000	80138	GENERATOR SWEEP	109	A	0853
			IFR66A	80138	GENERATOR SWEEP	108	A	0861
			9008	01113	GENERATOR SWEEP	052	A	0863
			8580DH	23042	SWEEP GENERATOR	109	A	0869
			SM2000	04423	GENERATOR SIGNAL	052	A	0871
			200315	23042	GENERATOR SWEEP	109	A	0881
			110A	80138	GENERATOR SWEEP	052	A	0836
			CP932B	80138	OSCILLATOR SWEEP	052	M	4110
			LSYA	04423	GENERATOR SWEEP	108	A	1909
			SG800A	29644	GENERATOR SIGNAL	049	M	4118
			1120	04423	GENERATOR SWEEP	109	A	1886
			20001	04423	GENERATOR SWEEP	108	A	1839
			4310AK16P	93459	GENERATOR SWEEP RF	049	M	4602
			650	88669	OSCILLATOR SWEEP	049	M	4612
			6600	88669	GENERATOR SIGNAL	049	M	4603
			86210A	28480	RF PLUG IN	109	M	4616
			86222A	28480	RF PLUG IN	049	M	4618
			86222B02	28480	GENERATOR SIGNAL	049	M	4875

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SPECIFICATION NAME	SPEC	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
SWEEP GENERATOR, UHF	22	PARTIALLY COMPATIBLE						
			86631B	28480	AUXILIARY SECTION	107	A	2091
			86632A	28480	MODULATION SECTION	107	A	2092
			86632B	28480	GENERATOR SIGNAL MODULATION SECTION	106	M	4877
			8690A	28480	OSCILLATOR SWEEP	052	A	2074
TACHOMETER, ELECTRONIC	32	FUNCTIONALLY COMPATIBLE						
		C		55719	T S TACH DWELL	117	B	2681
		H2		08151	TACHOMETER	117	B	1815
		134GT1041T5		26512	TEST SET EJECTION SEAT	117	M	4451
		17233		30120	TESTER PRECISION TACHOMETER	117	B	2464
		2755		01216	SCOPE ANALYZER	117	B	3520
		2783		01216	TACHOMETER DWELL	117	B	3521
		36FE			TACHOMETER PHOTO	117	B	1762
		PARTIALLY COMPATIBLE						
		TSR06U	441	80740	TACHOMETER ELEC	117	B	1113
		TTU27E	F5000	84997	T S TACHOMETER	117	B	1257
			8891	17613	TACHOMETER PHOTO STROBOSCOPIC	117	M	5125
			MT1510	16764	T S VEHICLE ELECTRICAL	117	B	3394
			MT650	16764	ANALYZER ENGINE	117	B	3393
			TD52	55026	T S TACHOMETER DWELL	117	B	3403
			TFCS3091	94117	TEST CONSOLE CYROSCOPE	117	M	4426
			135M11	99866	TRACKER BLADE	117	M	5148
			4402	03692	METER TACHOMETER FREQ	117	R	2103
		PARTIALLY COMPATIBLE						
TELETYPE TEST SET	35	FUNCTIONALLY COMPATIBLE						
		ANGCM1	DACS4	96238	T S TELETYPEWRITER	066	B	0145
		ANGCM1A	DACV	96238	T S TELETYPEWRITER	066	B	0141
		ANGCM11V	90067003002	96238	T S TELETYPEWRITER	066	B	0147
		ANGCM15V	9600	14031	T S TELEGRAPH	066	B	0148
		ANGCM15V1	9600	14031	T S TELEGRAPH	066	B	0149
		ANGCM15V2	9600RH	14031	T S TELEGRAPH	066	B	0150
		ANGCM2	DACS8	96238	T S TELETYPEWRITER	066	B	0142
		ANGCM2A	DACV	96238	T S TELETYPEWRITER	066	B	0143
		ANGCM20	DT5531A	31935	T S TELETYPEWRITER	066	B	0151
		ANGCM3	DACS5C	96238	T S TELETYPEWRITER	066	B	0144
		ANGCM4	DACS0	96238	T S TELETYPEWRITER	066	B	0140
		ANGCM5	DACS5E	96238	T S TYPEWRITER	066	B	0146
		ANGPM1	EMTS200	02036	T S TELEGRAPH	067	B	0236
		ANGPM1A	249	06053	T S TELEGRAPH	067	B	0237
		ANGPM1B	KFC7750	09043	T S TELEGRAPH	067	B	0238
		TS2A-RTG			T S TELETYPEWRITER	066	M	4036
		TS2CTG	5008	39314	T S TELETYPEWRITER	067	B	4051

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## GENERAL PURPOSE TMODE OTS ETE SPECIFICATIONS

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SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	MUMENCLATURE	FAMILY CODE	GP LFR	ID NO.
PARTIALLY COMPATIBLE							
ANUGMI			96230	T S TELETYPEWRITER	066	R	0307
ANUGMS			06763	T S TELETYPEWRITER	067	R	0308
SG1054G	PG303A		96230	GENERATOR PATTERN	067	B	0495
TS1060AGG	TD42NR		96230	T S TELETYPEWRITER	066	B	1128
TS1060BGG	ASD100A		05729	T S TELETYPEWRITER	066	B	1129
TS1060CGG	TD42NR		96230	T S TELETYPEWRITER	066	B	1127
TS112-A-BGGM	DDSDACV		96230	T S TELETYPEWRITER	067	B	1141
TS2255G	7412		80257	T S TELETYPEWRITER	067	B	1187
TS2256G	01603		14031	T S TELETYPEWRITER	066	B	1188
TS2393G	DAC7		96230	ANALYZER TELEDATA	066	B	1193
TS3378G	DMS303A		96230	ANALYZER DATA TELEGRAPH	066	B	2361
TS383AGG	DXD4DT5		59433	T S TELETYPEWRITER	066	B	1008
TS383BGG	8XD4HU26		59433	T S TELETYPEWRITER	066	B	1009
TS383CGG	DXD4		59433	T S TELETYPEWRITER	066	B	1007
TS785AGG	GA10767		64959	T S TELETYPEWRITER	066	B	1105
TS785GG	X75041A		64959	T S TELETYPEWRITER	066	B	1104
TS917AGG	TD42		96230	T S TELETYPEWRITER	066	B	1120
TS917GG	400		15230	GENERATOR TEST MESSAGE	067	B	1119
							2511
FUNCTIONALLY COMPATIBLE							
ANUGMI			96230	T S TELETYPEWRITER	066	B	0307
TS1060AGG	TD42NR		96230	T S TELETYPEWRITER	066	B	1128
TS1060BGG	ASD100A		05729	T S TELETYPEWRITER	066	B	1129
TS1060CGG	TD42NR		96230	T S TELETYPEWRITER	066	B	1127
TS2256G	01603		14031	T S TELETYPEWRITER	066	B	1188
TS2393G	DAC7		96230	ANALYZER TELEDATA	066	B	1193
TS3378G	DMS303A		96230	ANALYZER DATA TELEGRAPH	066	B	2361
TS383AGG	DXD4DT5		59433	T S TELETYPEWRITER	066	B	1008
TS383BGG	8XD4HU26		59433	T S TELETYPEWRITER	066	B	1009
TS383CGG	DXD4		59433	T S TELETYPEWRITER	066	B	1007
TS785AGG	GA10767		64959	T S TELETYPEWRITER	066	B	1105
TS785GG	X75041A		64959	T S TELETYPEWRITER	066	B	1104
TS800UCHI			96230	T S TELETYPEWRITER	066	B	1107
TS917AGG	TD42		96230	T S TELETYPEWRITER	066	B	1120
TS917GG	0A404		96230	PORTABLE DATA ANALYZER	066	B	1119
					066	N	4408
PARTIALLY COMPATIBLE							
ANCGMI	DACSA		96230	T S TELETYPEWRITER	066	B	0145
ANCGMIA	DACV		96230	T S TELETYPEWRITER	066	B	0141
ANCGM11V	90067003002		96230	T S TELETYPEWRITER	066	B	0147
ANCGM15V	'9600		14031	T S TELEGRAPH	066	B	0148
ANCGM15V1	'9600		14031	T S TELEGRAPH	066	B	0149

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## GENERAL PURPOSE TMDR DTS ETE SPECIFICATIONS

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
TELETYPE TEST SET ANALYZER	17	PARTIALLY COMPATIBLE					
ANGGH15V2	9600RM		14031	T S TELEGRAPH	066	B	0150
ANGGH2	DACS8		96238	T S TELETYPEWRITER	066	B	0142
ANGGH2A	DACV		96238	T S TELETYPEWRITER	066	B	0143
ANGGH20	DT5531A		31935	T S TELETYPEWRITER	066	B	0151
ANGGH3	DACS8		96238	T S TELETYPEWRITER	066	B	0144
ANGGH4	DACS8		96238	T S TELETYPEWRITER	066	B	0140
ANGGH5	DACS8		96238	T S TELETYPEWRITER	066	B	0146

## TELETYPE TEST SET GENERATOR 34 FUNCTIONALLY COMPATIBLE

ANGGH5	PG303A		06763	T S TELETYPEWRITER	067	B	0308
SG1054G	DD5DACV		96238	GENERATOR PATTERN	067	B	0895
TS1512.A.BGCH	7412		96238	T S TELETYPEWRITER	067	B	1141
TS2255G			80257	T S TELETYPEWRITER	067	B	1107
TS799UGH1	PG404		96238	T S TELETYPEWRITER	067	B	1106
	400		96238	PORTABLE PATTERN GENERATOR	067	B	2483
			15230	GENERATOR TEST MESSAGE	067	B	2511

## PARTIALLY COMPATIBLE

ANGGH1	DACS8		96238	T S TELETYPEWRITER	066	B	0145
ANGGH1A	DACV		96238	T S TELETYPEWRITER	066	B	0141
ANGGH11V	90067003002		96238	T S TELETYPEWRITER	066	B	0147
ANGGH15V	9600		14031	T S TELEGRAPH	066	B	0148
ANGGH15V1	9600		14031	T S TELEGRAPH	066	B	0149
ANGGH15V2	9600RM		14031	T S TELEGRAPH	066	B	0150
ANGGH2	DACS8		96238	T S TELETYPEWRITER	066	B	0142
ANGGH2A	DACV		96238	T S TELETYPEWRITER	066	B	0143
ANGGH20	DT5531A		31935	T S TELETYPEWRITER	066	B	0151
ANGGH3	DACS8		96238	T S TELETYPEWRITER	066	B	0144
ANGGH4	DACS8		96238	T S TELETYPEWRITER	066	B	0140
ANGGH5	DACS8		96238	T S TELETYPEWRITER	066	B	0146
TS7A-RTG					066	M	4036
TS7C1G	5008		39314	T S TELETYPEWRITER	067	B	0951

## TELEVISION GENERATOR A 79 FUNCTIONALLY COMPATIBLE

ANUSH221	SH2000		04423	GENERATOR SIGNAL	109	A	0480
	415		08098	GENERATOR SWEEP/MARKER	068	D	1859
ANUSH222	SH2000		04423	GENERATOR SIGNAL	109	A	0481
	SP62		80009	GENERATOR SYNC PULSE	068	M	4883
	TS63		80009	GENERATOR VIDEO LINEARITY	068	M	4881
	1405		80009	ANALYZER TV SIDEBANDS	068	M	4884

# PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE INDE OTS EYE SPECIFICATIONS

07/01/80

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
TELEVISION GENERATOR A	79	PARTIALLY COMPATIBLE						
			1410C		80009 GENERATOR SIGNAL NTSC	060	M	5149
			14700PTIOM1		80009 GENERATOR TEST SIGNLE CLOSED CIRCUIT	060	M	4121
TELEVISION GENERATOR C	80	FUNCTIONALLY COMPATIBLE						
			SG1132U					
			146NTSC		80009 GENERATOR NTSC TEST SIGNAL	060	D	1093
			TS61		80009 GENERATOR COLOR BAR PI	060	M	4079
			WR515A		02734 MASTER CIMG-BAR GENERATOR/SIGNALYST	060	D	1076
			1248		80098 GENERATOR SIGNAL TV	060	M	4085
			140		80009 GENERATOR SIGNAL NTSC	060	D	1091
			14700PTIOM1		80009 GENERATOR TEST SIGNLE CLOSED CIRCUIT	060	M	4121
		PARTIALLY COMPATIBLE						
			1405		80009 ANALYZER TV SIDEBANDS	060	M	4084
			1410C		80009 GENERATOR SIGNAL NTSC	060	M	5149
TEMPERATURE INDICATOR	96	PARTIALLY COMPATIBLE						
			1864A		28480 PROBE HIGH TEMPERATURE	070	M	5152
			2802A01		28480 THERMOMODULE	070	M	5155
			6740		01518 TEMPERATURE INDICATING DIGITAL	070	M	4646
			9370C		13571 METER DIGITAL TEMPERATURE	070	M	4645
TRANSMISSION TEST SET	92	FUNCTIONALLY COMPATIBLE						
			4740A		28480 SET MEASURING TRANSMISSION IMPAIRME	014	D	1600
			4740A003		28480 TRANSMISSION IMPAIRMENT MEASURING S	071	D	4071
			4943A010		28480 MEASURING SET TRANSMISSION IMPAIRME	071	M	4914
			9028		64959 TEST SET DATA	071	M	4696
			9038		64959 DATA TEST SET	071	M	4699
		PARTIALLY COMPATIBLE						
			3550A		28480 T S TELEPHONE	071	D	0455
			3550BC15		28480 T S TELEPHONE	071	D	0456
			3550B		28480 TEST SET TELEPHONE	071	M	4413
			3550AC24		28480 T S TELEPHONE	071	D	0534
			3550BH03		28480 TELEPHONE TEST SET	071	D	1787
			CP1101U		06819 COUNTER ELFC DIGITAL	023	D	0551
			ME22APCH		92161 METER DECIBEL	071	D	0654
			5491		92161 METER DECIBEL	071	D	0653
			4038		28480 VOLTMETER FLEC	076	B	0691
			OP1828		14140 METER AUDIO LEVEL	005	D	0702
			ME356U		50319 METER PHASE JITTER	037	D	1629
			ME490U		94668 METER AUDIO LEVEL	005	D	0671
			ME71AFCC					



# PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE INDE ITS ETC SPECIFICATIONS

07/01/80

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
TRANSMISSION TEST SET	R2	PARTIALLY COMPATIBLE					
ME71BFCC	108B		94668	METER AUDIO LEVEL	005	D	0672
ME71CFCC	K20074		07450	METER AUDIO LEVEL	005	D	0673
ME71FCC	KS15538		64959	METER AUDIO LEVEL	005	M	4410
TAB05U	35558		28480	T S TELEPHONE	071	D	2357
TS140PCM	5489		11975	T S TELEPHONE	071	D	0963
TS2795AG	340A		94668	ENVELOPE DELAY T S	016	D	1196
TS2395G	340B		94668	ENVELOPE DELAY T S	016	D	1195
TS2469AGCM	490B		03860	MEASURING SET ENVELOPE DELAY DISTOR	016	D	1207
TS2669GCM	490A		03860	MEASURING SET ENVELOPE DELAY DISTOR	016	D	1206
TS3171U	TS337B		06819	T S AUDIO	071	D	1225
TS3483U	TS4CR		06819	TRANSMISSION T S	071	D	1615
TS559AFT	2809		14140	TRANSMISSION MEASURING SET	071	D	1045
TS559BFT	34B		14140	TRANSMISSION MEASURING SET	071	D	1046
TS559CFT	34C		14140	TRANSMISSION MEASURING SET	071	D	1047
TS559DFT	T335TS559		51865	TRANSMISSION MEASURING SET	071	D	0734
TS559EFT	20203A		13175	TRANSMISSION MEASURING SET	071	D	1049
TS559FT	2B		64959	TRANSMISSION MEASURING SET	071	D	1044
TS569FT	30A		64959	T S TELEPHONE	071	D	1051
TS716U	224		02230	T S TELEPHONE	071	D	1091
TS762TC	MUS2120		14140	T S AUDIO	071	D	1100
	9041		20444	TRANSH LEVEL & RETURN LOSS MEAS SET	071	D	2391
TRANSMISSION TEST SET	G1	FUNCTIONALLY COMPATIBLE					
AMPTNS	3A		64959	T S TELEPHONE	071	D	0261
ANUSM181	3550A		28480	T S TELEPHONE	071	D	0455
ANUSM18B	3550BC15		28480	T S TELEPHONE	071	D	0456
ANUSM18C	3550B		28480	TEST SET, TELEPHONE	071	M	4413
ANUSM343	3550AC24		28480	T S TELEPHONE	071	D	0534
ANUSM423	3550BH03		28480	TELEPHONE TEST SET	071	D	1787
ME22APCM			92161	METER DECIBEL	071	D	0654
ME22PCM	5491		92161	METER DECIBEL	071	D	0653
ME71AFCC	108A		94668	METER AUDIO LEVEL	005	D	0671
ME71BFCC	108B		94668	METER AUDIO LEVEL	005	D	0672
ME71CFCC	52D074		07450	METER AUDIO LEVEL	005	D	0673
ME71FCC	KS15538		64959	METER AUDIO LEVEL	005	M	4410
TAB05U	35558		28480	T S TELEPHONE	071	D	2357
TS140PCM	5489		11975	T S TELEPHONE	071	D	0963
TS3171U	TS337B		06819	T S AUDIO	071	D	1225
TS3483U	TS4CR		06819	TRANSMISSION T S	071	D	1615
TS559AFT	2809		14140	TRANSMISSION MEASURING SET	071	D	1045
TS559BFT	34B		14140	TRANSMISSION MEASURING SET	071	D	1046
TS559CFT	34C		14140	TRANSMISSION MEASURING SET	071	D	1047
TS559DFT	T335TS559		51865	TRANSMISSION MEASURING SET	071	D	0734
TS559EFT	20203A		13175	TRANSMISSION MEASURING SET	071	D	1049
TS559FT	2B		64959	TRANSMISSION MEASURING SET	071	D	1044

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## PART 1 CROSS-REFERENCE LIST

## GENERAL PURPOSE TUBE DYS ETC SPECIFICATIONS

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
TRANSMISSION TEST SET	31	FUNCTIONALLY COMPATIBLE						
TS569FT		30A		64959	T S TELEPHONE	071	D	1051
TS629AU				50304	AUDIO LEVEL TEST PANEL	005	D	1069
TS629BU				14140	AUDIO LEVEL TEST PANEL	005	D	3736
TS629CU				53527	AUDIO LEVEL TEST PANEL	005	D	1070
TS629DU		TR924		14140	AUDIO LEVEL TEST PANEL	005	D	1071
TS629EU		0211403		25572	AUDIO LEVEL TEST PANEL	005	D	1072
TS629FU		TR924B		14140	AUDIO LEVEL TEST PANEL	005	D	1068
TS716U		224		02230	T S TELEPHONE	071	D	1091
TS762TC		MUS2120		14140	T S AUDIO	071	D	1100
TS903U		1142		90649	T S TELEPHONE	122	D	1117
		IT11103B		50137	T S TRANSMISSION	071	D	2363
		IT111140		50137	T S TELEPHONE	071	D	2365
		12B		14140	MEASURING SET TELEPHONE TRANSMISSION	071	D	2369
PARTIALLY COMPATIBLE								
ME260U		403B		28480	VOLTMETER ELEC	076	B	0691
ME30AU		400D		28480	VOLTMETER ELEC	076	B	0661
ME30BU		513A		26687	VOLTMETER ELEC	076	B	0662
ME30CU		513A		35124	VOLTMETER	076	B	3622
ME30DU		111A		12365	VOLTMETER ELEC	076	B	0663
ME30EU		998101		12365	ELECTRONIC VOLTMETER	076	B	3623
ME30FU				25778	ELECTRONIC VOLTMETER	076	M	4046
ME30U		400C		28480	VOLTMETER ELEC	076	B	0660
ME356U		0P182B		14140	METER AUDIO LEVEL	005	D	0702
ME425U		400L		28480	VOLTMETER ELEC	076	B	0706
TS27AT5H		713003		00798	T S TELEPHONE	032	B	0957
TS27BT5H		ETS27B		64959	T S TELEPHONE	032	B	0958
TS27CT5H		0166237		95104	T S TELEPHONE	032	B	0956
TS3157U		TT54AMHRV		06019	TELEPHONE TEST SET	071	D	1223
		TT54DNH		28480	TEST DESK FAULT LOCATOR	071	D	2362
		4913A		20944	TRANSM LEVEL & RETURN LOSS MEAS SET	009	M	4558
		9041				071	D	2391
FUNCTIONALLY COMPATIBLE								
ANUSM173		244535			T S ELECTRON TUBE	072	B	0454
TV11AU		K200		82199	T S ELECTRON TUBE	072	B	1266
TV13U		K100		82199	T S ELECTRON TUBE	072	B	1265
TV2AU					T S ELECTRON TUBE	072	B	1259
TV2BU					T S ELECTRON TUBE	072	B	1260
TV2CU					T S ELECTRON TUBE	072	B	1261
TV2DU					T S ELECTRON TUBE	072	B	1258
TV6U		602		60741	T S ELECTRON TUBE	072	B	1262
TV70U				00641	T S ELECTRON TUBE	072	B	1264
TV7U				28569	T S ELECTRON TUBE	072	B	1263

# PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE TIME AND EYE SPECIFICATIONS

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SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	CP LTR	ID NO.
36	FUNCTIONALLY COMPATIBLE						
		123A	28569	T S ELECTRON TUBE	072	B	2480
		6000	28569	T S ELEC TUBE	072	B	2530
		6000A	28569	T S ELEC TUBE	072	B	2694
	PARTIALLY COMPATIBLE						
	ANUSH118B	901265	28569	T S ELECTRON TUBE	072	B	0445
		C2767	32385	TESTER IMAGE TUBE	072	E	2537
		TT125	04071	TESTER TUBE IMAGE	072	B	2503
		1820016	89944	TESTER TUBE ONE STAGE IMAGE	072	B	2714
		1820017	89944	TESTER TUBE ONE STAGE	072	B	2465
		1820018	89944	TESTER TUBE THREE STAGES	072	B	2466
		3111875	06270	T S STATIC TUBE	072	B	2470
		350334	97312	TESTER IMAGE ITENSIF TUBE ALIGNMENT	072	B	2449
		350334	97312	T S ELECTRON TUBE	072	B	2713

## UNIVERSAL COUNTER 10C TO 500M 57 FUNCTIONALLY COMPATIBLE

AM4380U	28480	AMPL VIDEO P I	018	0019
AMTSM16	99395	METER FREQ	018	0277
ANURM79	56118	METER FREQ	018	0368
ANURM80	35225	METER FREQ	018	0369
ANURM81	35225	METER FREQ	018	0370
ANUS45	28480	CONVERTER FREQ ELEC	018	0409
ANUSM122A	28480	FREQ MEASURING SET	018	0446
ANUSH207	06692	COUNTER ELEC DIGITAL READOUT	018	0474
ANUSH207A	13576	COUNTER ELEC DIGITAL READOUT	018	0475
ANUSH26A	94033	METER FREQ	018	0412
CP1033U	28480	COUNTER ELEC DIGITAL READOUT	017	0549
CP1049PU	28480	COUNTER ELECTRONIC DIGITAL READOUT	018	0659
CP1192TYC	28480	FREQUENCY COUNTER	018	5111
CV2002U	28480	CONVERTER FREQ ELEC	018	0554
CV101U	28480	CONVERTER FREQ ELEC	018	0552
CV1059U	28480	CONVERTER FREQ	018	0558
FR174U	28480	COUNTER ELEC DIGITAL	018	0573
FR80U	28480	COUNTER ELEC FREQ	018	0567
LA387A	28480	TIMER DIGITAL ELEC	018	0603
MX1636AU	28480	UNIT TIME INTERVAL	018	0737
PL1303U	28480	PREScaler DIGITAL VOLTMETER	018	0800
PL1189U	28480	P I TIME INTERVAL UNIT	018	3556
TD1028U	28480	COUNTER ELEC	018	0946
TD1209U	28480	TIME INTERVAL UNIT	018	2113
TD1211U	28480	COUNTER UNIVERSAL P I	018	2235
TD275U	28480	TIME INTERVAL UNIT	018	4138
TD474U	15356	COUNTER ELEC DIGITAL READOUT	018	0943
TD475APU	06811	COUNTER ELEC DIGITAL READOUT	018	0945

# PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE INDE OTS ETE SPECIFICATIONS

07/01/80

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
FUNCTIONALLY COMPATIBLE							
10875PU	1037B	06811	06811	COUNTER FLEC DIGITAL READOUT	010		0944
TS3238U	615350	06811	06811	ANALYZER COUNTER FREQ	010		1239
TS3662U	5328AH42	28480	28480	COUNTER ELECTRONIC DIGITAL READOUT	010		4893
	DC503	80009	80009	COUNTER UNIVERSAL	010		4142
	DC505A	80009	80009	COUNTER ELECTRONIC	010		4141
	DD501	80009	80009	DIGITAL DELAY	010		4140
	DY2501	30534	30534	COUNTER	010		2143
	M095512A	28480	28480	COUNTER ELECTRONIC FREQUENCY	010		4139
	1002	90101	90101	COUNTER PHASE ANGLE AND FREQ COUNTIE	010		2214
	1037A1926A	06811	06811	COUNTER TIMER	010		1708
	1037M	06811	06811	COUNTER ELEC	010		2221
	1037M2	06811	06811	MEASUREMENT SYSTEM TIME-FREQ	010		2220
	1153	24655	24655	COUNTER FREQ	010		1710
	1156A	24655	24655	FREQ DIVIDER	010		1711
	11918	24655	24655	COUNTER	010		1712
	1926A	06811	06811	TIME INTERVAL P 1	010		2225
	451	21793	21793	COUNTER ELECTRONIC	010		4892
	512A	28480	28480	CONVERTER FREQ	010		5175
	512B	28480	28480	CONVERTER FREQ	010		1737
	521A	28480	28480	COUNTER ELEC	010		2211
	521C	28480	28480	COUNTER FREQ	010		2212
	5216A	28480	28480	COUNTER ELEC	010		2107
	5228R	28480	28480	COUNTER TIMER	010		2213
	5221A	28480	28480	COUNTER ELEC FREQ	010		2108
	5221B	28480	28480	COUNTER ELEC	010		2109
	5238	28480	28480	COUNTER FREQ	010		2214
	5240	28480	28480	COUNTER FREQ	010		1739
	5245LC27	28480	28480	COUNTER ELEC DIGITAL READOUT	010		2133
	5246M	28480	28480	COUNTER ELEC	010		2110
	525C	28480	28480	CONVERTER P 1 FREQ	010		1740
	5258	28480	28480	PRESALER P 1	010		2232
	5258A	28480	28480	PRESALER FREQ COUNTER	010		2233
	5300A	28480	28480	MEASUREMENT SYSTEM MAINFRAME	010		2234
	5303A	28480	28480	COUNTER FREQ MODULE	010		2236
	5303B	28480	28480	COUNTER FREQ MODULE	010		2114
	5321A	28569	28569	COUNTER ELECTRIC	010		2237
	5321B	28480	28480	COUNTER ELEC	010		2115
	5325R	28480	28480	COUNTER ELEC	010		2132
	5325BC15	28480	28480	COUNTER ELECTRONIC	010		5168
	5326A	28480	28480	COUNTER FREQ	010		2116
	5326B	28480	28480	COUNTER UNIVERSAL	010		2239
	5340AH10	28480	28480	COUNTER ELECTRONICS	010		4664
	5345A	28480	28480	COUNTER ELECTRIC	010		2241
	5360A	28480	28480	COUNTER COMPUTING	010		2242
	5512A	28480	28480	COUNTER ELECTRONIC	010		4658
	6127	80053	80053	COUNTER FREQ	010		2117

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## PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE TRADE DTS ETC SPECIFICATIONS

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	CP LTR	ID NO.
UNIVERSAL COUNTER (DC TO 500M S7)	FUNCTIONALLY COMPATIBLE	614A	06692	COUNTER UNIVERSAL PRESET	018		1247
		6146	80053	COUNTER FREQ	018		2118
		6401	17778	COUNTER FREQUENCY	018		4662
		7015	80009	COUNTER TIMER UNIVERSAL	018		1756
		7150R	80053	EPUT METER	018		2246
		7175R	80053	COUNTER ELEC	018		2120
		7318	06692	COUNTER ELEC P I	018		1700
		737CN	06692	COUNTER ELEC P I	018		1701
		9A	95036	COUNTER ELECTRONIC DIGITAL READOUT	018		4663
					018		4460
VECTOR IMPEDANCE METER A	FUNCTIONALLY COMPATIBLE						
		2M74U	28480	METER VECTOR IMPEDANCE	073	D	1489
VECTOR IMPEDANCE METER B	PARTIALLY COMPATIBLE						
		301A	07342	VOLTMETER	074	D	2009
VECTOR IMPEDANCE METER B	FUNCTIONALLY COMPATIBLE						
		4815A	28480	METER RF VECTOR IMPEDANCE	073	D	1490
VECTOR VOLTMETER	PARTIALLY COMPATIBLE						
		301A	07342	VOLTMETER	074	D	2009
VECTOR VOLTMETER	FUNCTIONALLY COMPATIBLE						
		ME22JAPM129	07342	VOLTMETER PHASE ANGLE	074	D	0685
		ME512U	28480	VOLTMETER VECTOR	074	D	1436
		212A,B,C	07342	VOLTMETER PHASE ANGLE	074	M	4793
		244RS	13637	VOLTMETER PHASE ANGLE	074	M	4794
		8405AH16	28480	VOLTMETER VECTOR	074	M	4847
VIBRATION TEST SET	PARTIALLY COMPATIBLE						
		301A	07342	VOLTMETER	074	D	2009
VIBRATION TEST SET	FUNCTIONALLY COMPATIBLE						
		10VAD	01072	TESTER VIBRATION	111	E	2190
		100VPO	01072	TESTER VIBRATION	111	E	2197
		1500	62973	VIBRATION TESTER	111	E	2187

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## PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE INDE OTS FTE SPECIFICATIONS

SPEC MD	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	CP LTR	ID NO.
PARTIALLY COMPATIBLE							
		D80795	77272	INDICATOR VIBRATION AMPLITUDE	111	E	2539
		035502900	80009	TEST SET CALIBRATION FIXTURE	111	M	4472
		15539701	24655	METER VIBRATION	111	E	2224
		1711700104	14028	MONITOR KIT VIBRATION F53/55/63 104	111	M	4815
		330	21354	ANALYZER DYNAMIC VIBRATION BALANCER	111	E	1772
FUNCTIONALLY COMPATIBLE							
VOICE BAND ANALYZER	46		28480	SNEEP DRIVE	075	D	1855
		297A	28480	VOLTMETER SELECTIVE	075	M	4531
PARTIALLY COMPATIBLE							
		L258	94668	VOLTMETER FREQ SELECTIVE	110	C	0693
		305	94668	COMM TRANSMISSION MEASUREMENT SYSTE	110	C	2433
		127C	94668	METER LEVEL FREQ SELECTIVE	110	C	2044
		1298	94668	VOLTMETER FREQ SELECTIVE	110	C	2045
		3038	54778	VOLTMETER ELECTRONIC	110	M	4537
		305A	94668	TRANSMISSION MEASUREMENT SYSTEM	110	C	2380
		3591A	28480	VOLTMETER FREQ SELECTIVE	110	C	1947
		3594A	28480	OSCILLATOR SNEEPING LOCAL PLUG IN	059	C	1671
FUNCTIONALLY COMPATIBLE							
VOLTMETER, AC TRUE RMS	41		66150	T S ELECTRICAL POWER	076	B	0336
		3651		T S ELECTRICAL POWER	076	B	0330
				T S ELECTRICAL POWER	076	B	0331
		15001	24635	T S ELECTRICAL POWER	076	B	0332
		400E	28480	VOLTMETER	076	M	4534
		3400A	28480	RMS VOLTMETER	080	R	0483
		400E102	28480	VOLTMETER ELEC	076	B	0497
		433	65092	VOLTMETER	076	B	0602
		ESH	54085	VOLTMETER	076	B	0677
		403R	28480	VOLTMETER ELEC	076	B	0691
		400D	28480	VOLTMETER ELEC	076	B	0601
		513A	26687	VOLTMETER ELEC	076	B	0662
		513A	26687	VOLTMETER ELEC	076	B	3622
		111A	35124	VOLTMETER ELEC	076	B	0663
		99A101	12365	ELECTRONIC VOLTMETER	076	B	3623
		400C	25779	VOLTMETER ELECTRONIC	076	M	4046
		3400A	28480	VOLTMETER ELEC	076	B	0660
		3071	28480	VOLTMETER ELEC	080	B	0695
		400EEL02	00638	VOLTMETER ELEC	076	B	0697
		400LR	28480	VOLTMETER ELEC	076	B	0701
		400L	28480	VOLTMETER ELECTRONIC	076	M	0740
		400L	28480	VOLTMETER ELECTRONIC	076	B	0706

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## PART 1 CROSS-REFERENCE LIST

## GENERAL PURPOSE INDE DTS ETE SPECIFICATIONS

SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
VOLTMETER, AC TRUE RMS	41	FUNCTIONALLY COMPATIBLE						
ME444U		320A		50423	VOLTMETER ELEC	076	B	0708
ME451G		303A		94668	VOLTMETER ELEC	076	B	0710
ME459U		400EL		28480	VOLTMETER ELEC	076	B	0712
		549H		28569	VOLTMETER AC	076	B	2029
		V100H		12365	VOLTMETER	076	B	2032
		124R		BD164	VOLTMETER AC	076	B	2041
		2005		08098	VOLTMETER	076	B	1935
		2918712A17		79500	VOLTMETER AC	076	B	2006
		316		50423	VOLTMETER	076	N	4535
		323		50423	VOLTMETER ELEC	080	B	2012
		3400AY10		28480	VOLTMETER RMS	080	B	2574
		400F		28480	VOLTMETER ELECTRONIC	076	A	2061
		400FL		28480	VOLTMETER ELECTRONIC	076	B	2063
		400HR		28480	VOLTMETER ELEC	076	B	3361
		433		65092	VOLTMETER AC	076	B	2023
		433A		65092	VOLTMETER AC	076	B	1950
		433B		65092	VOLTMETER AC	076	B	1952
		704HSR		95800	VOLTMETER	076	B	1963
		727		01113	SIGNAL LEVEL METER	076	B	1964
		7402A137		28480	OSCILLOGRAPHIC RECORDER TWO CHANNEL	036	M	5176
		77000		50423	VOLTMETER	076	N	4536
		910ARAV		89536	METER V ELECTRIC	080	B	2561
		93AD		04901	VOLTMETER TRUE RMS	080	B	2039
PARTIALLY COMPATIBLE								
ME2028U		803B		89536	VOLTMETER ELEC	121	B	0683
ME202U		803		89536	VOLTMETER ELEC	121	B	0682
ME262U		305A		50423	VOLTMETER	076	B	0692
ME71AFCC		108A		94668	METER AUDIO LEVEL	005	D	0671
ME71BFCC		108B		94668	METER AUDIO LEVEL	005	D	0672
ME71CFCC		520074		07450	METER AUDIO LEVEL	005	D	0673
ME71FFCC		KS15538		64959	METER AUDIO LEVEL	005	M	4410
TS28430		887AB		89536	VOLTMETER	121	B	1210
		DM502		80009	MULTIMETER DIGITAL	032	N	4057
		ML55C		50666	VOLTMETER	076	N	4835
		PA14AC		79500	VOLTMETER PORTABLE	076	N	4045
		1346		24655	MICROVOLTIER AUDIO FREQ	076	A	1927
		2605		55026	MULTIMETER	032	B	1336
		2612		55026	MULTIMETER	032	M	4563
		300H		50423	VOLTMETER ELEC	076	B	2007
		302C		05535	VOLTMETER ELECTRONIC	076	B	4529
		310A		50423	VOLTMETER	076	B	3353
		310A52		50423	VOLTMETER	076	B	3354
		310N52		50423	VOLTMETER ELEC	076	B	3355
		313		55026	MULTIMETER	032	B	1345

# PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE INDE OTS ETE SPECIFICATIONS

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SPECIFICATION NAME	SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NONFUNCTIONALURE	FAMILY CODE	GP LTR	ID NO.
VOLTMETER, AC TRUE RMS	41	PARTIALLY COMPATIBLE						
			3403C	28480	VOLTMETER TRUE RMS	080	B	1940
			341	65092	VOLTMETER AC DC	080	B	2014
			355	50423	VOLTMETER AC DC	076	B	2015
			427A	28480	MULTIMETER	032	B	1353
			430	65092	VOLTMETER AC	076	B	0559
			4311906002	65092	VOLTMETER PORTABLE AC	076	B	1954
VOLTMETER, DIFFERENTIAL	38	FUNCTIONALLY COMPATIBLE						
			ME202BU	8038	89536 VOLTMETER ELEC	121	B	0683
			ME202U	803	89536 VOLTMETER ELEC	121	B	0682
			TS2843U	883AB	89536 VOLTMETER	121	B	1210
			7408	28480	DC STANDARD DIFFERENTIAL VOLTMETER	121	B	1965
			7418	89536	VOLTMETER DIFFERENTIAL AC DC	121	B	1966
			8038R	89536	VOLTMETER DIFFERENTIAL	121	B	1967
			8030AC	89536	VOLTMETER ELEC	121	B	1969
			887A	89536	VOLTMETER DIFFERENTIAL	121	B	1971
			887ABAM	89536	VOLTMETER DIFFERENTIAL	121	B	2560
			891A	89536	VOLTMETER DIFFERENTIAL DC	121	B	1972
			893A	89536	VOLTMETER DIFFERENTIAL	121	B	1973
			931B	89536	TRUE RMS DIFFERENTIAL VOLTMETER	121	N	4530
VOLTMETER, FREQUENCY SELECTIV	70	FUNCTIONALLY COMPATIBLE						
			ME161U	801	89536 VOLTMETER DIFFERENTIAL	077	B	0679
			2007	27591	VOLTMETER	079	B	1936
			335A	89536	CALIBRATOR VOLTMETER	121	B	3456
			895A	89536	VOLTMETER DC	077	B	1970
			895A	89536	DC DIFFERENTIAL-NULL METER	121	N	4541
			91808	16655	POTENTIOMETER	077	B	2049
VOLTMETER, FREQUENCY SELECTIV	70	FUNCTIONALLY COMPATIBLE						
			ME295U	1258	94668 VOLTMETER FREQ SELECTIVE	110	C	0693
			1268	94668	VOLTMETER FREQ SELECTIVE	110	C	2043
			3591A	28480	VOLTMETER FREQ SELECTIVE	110	C	1947
			3745A	28480	IS SELECTIVE LEVEL MEASURING	110	N	5159
VOLTMETER, FREQUENCY SELECTIV	70	FUNCTIONALLY COMPATIBLE						
			AMUSH306V	94668	T S RADIO	110	C	0515
			AMUSH306V1	94668	T S RADIO	110	C	0516
			FR205U	94668	METER FREQ	110	C	0575
			TS2721U	94668	COMM TRANSMISSION MEASUREMENT SYSTE	110	C	2433
			TS1066V2U	28480	SPECTRUM ANALYZER	110	C	1220
			TS1066V3U	28480	ANALYZER WAVE	110	C	3563



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SPEC	SPECIFICATION NAME	NO	TYPE	DESIGNATOR	MFR. MODEL NO.	MFR. CODE	DESCRIPTION	FAMILY CODE	GP LTR	IO NO.	
	VOLTMETER, FREQUENCY SELECTIVE	70		PARTIALLY COMPATIBLE							
					127C	94668	METER LEVEL FREQ SELECTIVE	110	C	2044	
					129B	94668	VOLTMETER FREQ SELECTIVE	110	C	2045	
					303R	54778	VOLTMETER ELECTRONIC	110	M	4517	
					305A	94668	TRANSMISSION MEASUREMENT SYSTEM	110	C	2380	
	VOLTMETER, RF	40		FUNCTIONALLY COMPATIBLE							
					ANURM145	04901	VOLTMETER ELEC	079	B	0393	
					ANURM145A	24635	VOLTMETER ELEC	079	B	0394	
					ANURM145B	85711	VOLTMETER ELEC	079	B	0395	
					ME426U	28480	T S BROAD BAND	079	B	2791	
					ME6U	05535	VOLTMETER ELEC	076	B	0647	
					ME8RU	28480	RF MILLIVOLTMETER	079	B	3682	
						411A	85711	MICROVOLTMMETER RF	079	B	1594
						MY20B	09415	VOLTMETER ELEC	080	A	3138
						10	04901	VOLTMETER ELECTRONIC	079	M	4532
					91DA	04901	VOLTMETER RADIO FREQ SENSITIVE METER	079	M	2038	
					91HR57						
				PARTIALLY COMPATIBLE							
					ME26AU	28480	MULTIMETER	032	B	0656	
					ME26BU	91820	MULTIMETER	032	B	0657	
					ME26CU	99395	MULTIMETER	032	B	0658	
					ME26DU		MULTIMETER	032	B	0659	
					ME26U	28480	MULTIMETER	032	B	0655	
					ME303AU	28480	VOLTMETER ELEC	032	B	0694	
					TS505AU	77221	MULTIMETER	032	B	1036	
					TS505BU	94066	MULTIMETER	032	B	1037	
					TS505CU		MULTIMETER	032	A	1038	
					TS505DU		MULTIMETER	032	A	1039	
					TS505EU	02581	MULTIMETER	032	B	1040	
					TS505U	123	MULTIMETER	032	B	1015	
						2007	MULTIMETER	079	B	1936	
				PARTIALLY COMPATIBLE							
					ANURM182	70998	T S RADIO FREQ POWER	040	C	0405	
					ANURM183	4110102	70998 WATTMETER RF THERMAL LINE	040	C	1764	
					ME11AU	61	91161 WATTMETER RF	040	C	0649	
					ME11BU		02230 WATTMETER RF	040	C	0650	
					ME11CU		91161 WATTMETER RF	040	C	0651	
					ME11U	7503	70998 WATTMETER RF	040	C	0648	
					ME12U	MM265	65092 WATTMETER	040	C	0674	
					TS118AAP	623011	70998 RADIO FREQ WATTMETER	040	C	0961	
					TS118AP	693	70998 T S WATTMETER	040	C	0960	
					TS2609AU	4110070	70998 T S RADIO FREQ POWER	040	C	1200	

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## PART I CROSS-REFERENCE LIST

## GENERAL PURPOSE INDE OTS EIF SPECIFICATIONS

SPEC NO	TYPE DESIGNATOR	MFR. MODEL NO.	MFR. CODE	NOMENCLATURE	FAMILY CODE	GP LTR	ID NO.
WATTMETER, RF							
FUNCTIONALLY COMPATIBLE							
TS2609U		4110000	70998	T S RADIO FREQ POWER	040	C	1199
TS7309H		5756011	01723	BRIDGE SUMMATION	040	C	1097
		611	70998	WATTMETER RF ABSORPTION	040	C	1245
		612	70998	WATTMETER RADIO FREQ	040	C	1744
PARTIALLY COMPATIBLE							
ANURM86		67C	70998	WATTMETER	040	C	0373
ANURM86A		6733000	70998	WATTMETER	040	C	0374
ANUSM161		457	11332	T S RADIO FREQ POWER	040	C	0452
ANUSM260		431C	20480	T S RADIO FREQ POWER	041	C	0493
ME6U		300A	05535	VOLTMETER ELEC	076	B	0647
		164B	94668	WATTMETER	082	C	1767
		8900R	20480	CALIBRATOR PEAK POWER	040	C	2579
X-Y RECORDER							
FUNCTIONALLY COMPATIBLE							
RD458V1U		7035B	20480	RECORDER	084	E	3557
		RD25212D	06743	RECORDER ANALOG	084	E	1552
		7001AR	20480	RECORDER X-Y	084	E	1447
		7034A	20480	RECORDER X-Y	084	M	4575
		7035A	20480	RECORDER X-Y	084	E	1448
PARTIALLY COMPATIBLE							
TS3012U		135	20480	RECORDER COORDINATE DATA	089	E	1518

PART II

TCRL, U.S. ARMY GENERAL PURPOSE TMDE  
TO OTS ETE SPECIFICATION(S)

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PART II THDE CROSS-REFERENCE LIST  
GENERAL PURPOSE THDE OTS ETE SPECIFICATIONS

INDEX NUMBER	THDE ID	THDE TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C032038	0004	AM1039RUSH	CA	80009 091	S2	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C032014	0001	AM1039USH	5354C	80009 091	S2	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C032039	0005	AM1041USH	5354R	80009 089	S1	OSCILLOSCOPE, DC-15MHZ	
C032041	0007	AM1042AUSH	G	80009 089	S1	OSCILLOSCOPE, DC-15MHZ	
C032042	0008	AM1042RUSH	1A27	28569 091	S2	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C032017	5169	AM1042USH	5354G	80009 089	S1	OSCILLOSCOPE, DC-15MHZ	
C032040	0006	AM1042USH	5354GM0601	80009 089	S1	OSCILLOSCOPE, DC-15MHZ	
C032010	0009	AM1015USH137	1528	28480 089	S1	OSCILLOSCOPE, DC-15MHZ	
C020046	0010	AM114RUSH	D	80009 089	S1	OSCILLOSCOPE, DC-15MHZ	
C032020	0011	AM1174USH	L	80009 089	S1	OSCILLOSCOPE, DC-15MHZ	
C032008	0013	AM1567AUSH	1A049A	28569 089	S1	OSCILLOSCOPE, DC-15MHZ	
C032007	0012	AM1567USH	1A049	28569 089	S1	OSCILLOSCOPE, DC-15MHZ	
C032002	0015	AM1568AUSH	1A048A	28569 089	S1	OSCILLOSCOPE, DC-15MHZ	
C032021	0014	AM1568USH	1A048	28569 089	S1	OSCILLOSCOPE, DC-15MHZ	
C032024	0016	AM4030U	1752A	28480 091	S2	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C032026	0018	AM4031AU	1750R	28480 090	S2	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C032025	0017	AM4031U	1750A	28480 091	S2	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
G050061	0019	AM4100U	5261A	28480 01A	S7	UNIVERSAL COUNTER (DC TO 500MHZ)	
C032037	0020	AM4610U	7608	30669 091	S2	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C032004	0021	AM46565U	7A15AM11	80009 091	S2	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C010020	1461	AM6681V1U	8A08A	28480 076	91	OSCILLOGRAPHIC RECORDER A	92 OSCILLOGRAPHIC RECORDER B
C032034	0023	AM6785U	7A26	80009 090	S4	OSCILLOSCOPE, DUAL TRACE, DC200MHZ	
C032028	1570	AM6786U	7A27	80009 089	S1	OSCILLOSCOPE, DC-15MHZ	
C034001	1586	AM6787PU	7511	80009 085	S6	OSCILLOSCOPE, DC-500MHZ	
C032006	1575	AM6880U	7A18	80009 091	S2	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C032030	1572	AM6881U	7A13	80009 090	S4	OSCILLOSCOPE, DUAL TRACE, DC200MHZ	

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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE DTS ETC SPECIFICATIONS

INDEX NUMBER	TMDE TYPE ID DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C032055	4862 AMH94RU	7A15A	80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	96 TEMPERATURE INDICATOR
8022012	3594 ANAAM15	3MRSL	55026 998			
K090005	3542 ANCGM4	DACS	64959 013	72	DATA ERROR TEST SET	
K100011	0145 ANCGM1	DACS	96230 066	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR 33 TELETYPE TEST SET ANALYZER
K100010	0141 ANCGM1A	DACS	96230 066	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR 33 TELETYPE TEST SET ANALYZER
K100027	0147 ANCGM11V	90067003002	96230 066	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR 33 TELETYPE TEST SET ANALYZER
K080005	0148 ANCGM15V	9600	14031 066	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR 33 TELETYPE TEST SET ANALYZER
K080006	0149 ANCGM15V1	9600	14031 066	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR 33 TELETYPE TEST SET ANALYZER
K080007	0150 ANCGM15V2	9600RM	14031 066	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR 33 TELETYPE TEST SET ANALYZER
K100008	0142 ANCGM2	DACS	96230 066	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR 33 TELETYPE TEST SET ANALYZER
K100009	0143 ANCGM2A	DACS	96230 066	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR 33 TELETYPE TEST SET ANALYZER
K100014	0151 ANCGM20	DF5531A	31935 066	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR 33 TELETYPE TEST SET ANALYZER
K100003	0144 ANCGM3	DACS	96230 066	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR 33 TELETYPE TEST SET ANALYZER
K100001	0140 ANCGM4	DACS	96230 066	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR 33 TELETYPE TEST SET ANALYZER
K100006	0146 ANCGM5	DACS	96230 066	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR 33 TELETYPE TEST SET ANALYZER
0080018	0159 ANCPM15		82076 050	04	GENERATOR, SIGNAL, PULSE	03 SIGNAL GENERATOR, HF 10 GENERATOR, SIGNAL, VHF
0080019	0160 ANCPM15A	CA74R	82076 050	04	GENERATOR, SIGNAL, PULSE	03 SIGNAL GENERATOR, HF 10 GENERATOR, SIGNAL, VHF
0010056	0174 ANCRM50	606A	26400 051			03 SIGNAL GENERATOR, HF 01 AUDIO OSCILLATOR

PART II TIDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TIDE OTS ETE SPECIFICATIONS

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INDEX NUMBER	TIDE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAN FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
D010057	0175	ANGRM10A	11507A	20400 051		10 GENERATOR, SIGNAL, VHF 17 SIGNAL GENERATOR, VHF A
D010058	0176	ANGRM10B	A06AC15	20400 051		03 SIGNAL GENERATOR, HF 01 AUDIO OSCILLATOR 10 GENERATOR, SIGNAL, VHF 17 SIGNAL GENERATOR, VHF A
D010059	0177	ANGRM10C	921A	33013 051		03 SIGNAL GENERATOR, HF 01 AUDIO OSCILLATOR 10 GENERATOR, SIGNAL, VHF 17 SIGNAL GENERATOR, VHF A
				998 65	SPECTRUM ANALYZER, LOW FREQ	
				998 65	SPECTRUM ANALYZER, LOW FREQ	
A033001	0193	ANGSM13A	7659240	19200 009		20 MULTIMETER, DIGITAL HANDHELD 26 INSULATION, TEST SET 27 MEGOHMMETER 29 MULTIMETER, DIGITAL
E013037	0208	ANGSM161	0A2090	09553 034	50 NOISE POWER RATIO TEST SET	
E013038	0209	ANGSM161A	0A2090A	09553 034	50 NOISE POWER RATIO TEST SET	
A033011	0196	ANGSM45	8211077	19200 009		29 MULTIMETER, DIGITAL 26 INSULATION, TEST SET 27 MEGOHMMETER 20 MULTIMETER, DIGITAL HANDHELD
A012002	0199	ANGSM64	V15A	03626 078	29 MULTIMETER, DIGITAL	
A012003	0200	ANGSM64A	142	03626 078	29 MULTIMETER, DIGITAL	
				89536 078	29 MULTIMETER, DIGITAL	
K080000	0236	ANPGM1	FMTS200	02036 067	35 TELETYPE TEST SET	
K080009	0237	ANPGM1A	249	06053 067	35 TELETYPE TEST SET	
K080010	0238	ANPGM1B	KFC7750	09043 067	35 TELETYPE TEST SET	
D050052	0239	ANPPM1	212A	20400 050	04 GENERATOR, SIGNAL, PULSE	
D050052	3506	ANPPM1A	212A	20400 998	04 GENERATOR, SIGNAL, PULSE	

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PART II TMOE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMOE OTS ETE SPECIFICATIONS

INDEX NUMBER	TMOE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
D050052	3597	ANPRM1	903001	88869 998	43 FIELD STRENGTH METER A	
D010003	0240	ANPRM10		13094 106	18 GENERATOR SIGNAL, VHF	
A043059	0241	ANPRM15	28276	82680 032		28 MULTIMETER, DIGITAL HANDHELD 27 MEGOHMMETER
C040006	3564	AMPSM1		998	27 MEGOHMMETER	
A041006	0247	AMPSM4	979	65092 032		28 MULTIMETER, DIGITAL HANDHELD
A041007	0248	AMPSM4A		55026 032		28 MULTIMETER, DIGITAL HANDHELD
A041008	0249	AMPSM4B	07667	032		28 MULTIMETER, DIGITAL HANDHELD
A041009	0250	AMPSM4C		91020 032		28 MULTIMETER, DIGITAL HANDHELD
A041010	0251	AMPSM4D	127160	19913 032		28 MULTIMETER, DIGITAL HANDHELD
A041011	0252	AMPSM4E	PSM4	12510 032		28 MULTIMETER, DIGITAL HANDHELD
A041012	0253	AMPSM4F		12510 032		28 MULTIMETER, DIGITAL HANDHELD
A041005	0258	AMPSM4G	VP9E3810001	21246 032		28 MULTIMETER, DIGITAL HANDHELD
A041030	0254	AMPSM6		95325 032	28 MULTIMETER, DIGITAL HANDHELD	
A041031	0255	AMPSM6A		95325 032	28 MULTIMETER, DIGITAL HANDHELD	
A041032	0246	AMPSM6B	1995002	95325 032	28 MULTIMETER, DIGITAL HANDHELD	
K090064	0261	AMPTM8	3A	64959 071	81 TRANSMISSION TEST SET	
G050041	0277	AMTSM16	TS160001	99395 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
K090070	2386	AMTSM86	9002660000	83744 122	73 DIAL EQUIPMENT TEST SET	
K090080	0287	AMTSM86A	9002660000	83744 122	73 DIAL EQUIPMENT TEST SET	
K100002	0307	ANUGM1		96238 066	33 TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
K100024	0308	ANUGM5		06763 067	34 TELETYPE TEST SET GENERATOR	35 TELETYPE TEST SET
L030002	0336	ANUPM100	3451	66150 076	41 VOLTMETER, AC TRUE RMS	
B010005	1348	ANUPM108	4158	28480 063	69 STANDING WAVE RATIO (SWR) METER	
C040016	0920	ANUPM110	LAL18M	35225 061	68 SPECTRUM ANALYZER, RF	
C040014	0337	ANUPM133	SA15A	03782 061	65 SPECTRUM ANALYZER, LOW FREQ	

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PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME DTS ETE SPECIFICATIONS

INDEX NUMBER	TME ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
D050021	0316	ANUPM15		98179 050	04	GENERATOR, SIGNAL, PULSE	
D050020	0317	ANUPM15A	11997	15196 050	04	GENERATOR, SIGNAL, PULSE	
C040015	0324	ANUPM50	SCDL169906	00063 061	68	SPECTRUM ANALYZER, RF	
K060096	0325	ANUPM60		82199 053			09 SIGNAL GENERATOR, SHF E 54 FREQUENCY METER H 63 POWER METER, SHF
K060097	0326	ANUPM60A	SHD310527	82199 053			09 SIGNAL GENERATOR, SHF E 54 FREQUENCY METER H 63 POWER METER, SHF
	0328	ANUPM84	R110026	28480 061	68	SPECTRUM ANALYZER, RF	68 SPECTRUM ANALYZER, RF
C040019	0329	ANUPM84A	A152161	25778 061			
L030003	0330	ANUPM93		076	41	VOLTMETER, AC TRUE RMS	
L030004	0331	ANUPM93AU		076	41	VOLTMETER, AC TRUE RMS	
L030005	0332	ANUPM93C	15001	24635 076	41	VOLTMETER, AC TRUE RMS	
D010005	0394	AMMM103	SHD630500	82199 051	03	SIGNAL GENERATOR, IF	
A043008	0395	ANURM105		032	28	MULTIMETER, DIGITAL HANDHELD	
A043009	0396	ANURM105B		06833 032	28	MULTIMETER, DIGITAL HANDHELD	
A043010	0397	ANURM105C	R105	12510 032	28	MULTIMETER, DIGITAL HANDHELD	
D010055	0398	ANURM109	310141	79300 106	18	GENERATOR, SIGNAL, VHF	
E013014	3681	ANURM110A		998			45 FIELD STRENGTH METER C
E013008	0391	ANURM120	SK130094	54778 082	62	POWER METER, RF IN-LINE	
D010002	0392	ANURM127		51865 006	01	AUDIO OSCILLATOR	
K073059	4401	ANURM134A	55939	80052 061	68	SPECTRUM ANALYZER, RF	
	0393	ANURM145	91CA	04901 079	40	VOLTMETER, RF	
A011025	0394	ANURM145A	991000	24635 079	40	VOLTMETER, RF	
A011026	0395	ANURM145B	4482AA	85711 079	40	VOLTMETER, RF	
D010015	0396	ANURM149	SHD630000	82199 107			15 SIGNAL GENERATOR, UHF A 16 GENERATOR, SIGNAL, UHF



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PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME QTS ETE SPECIFICATIONS

INDEX NUMBER	TME ID	TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
0010146	1033	ANURM15	60NE	28480 106	18	GENERATOR, SIGNAL, VHF	17 SIGNAL GENERATOR, VHF A
A043002	3571	ANURM155	411A11025A	28480 998	41	VOLTMETER, AC TRUE RMS	
E013005	0399	ANURM167	6151A	70998 040			62 POWER METER, RF IN-LINE 63 POWER METER, SHF
0010135	0400	ANURM170	618C	28480 053	06	SIGNAL GENERATOR, SHF B	
F050001	0402	ANURM178	EMC25R	18581 043			43 FIELD STRENGTH METER A 44 FIELD STRENGTH METER B
C050008	0403	ANURM180	333A	28480 014	74	DISTORTION ANALYZER	
0010047	0404	ANURM181	202H	28480 106	18	GENERATOR, SIGNAL, VHF	
K071017	0405	ANURM182	4110102	70998 040	61	WATTMETER, RF	
C050018	0406	ANURM184	334AC10001	28480 014	74	DISTORTION ANALYZER	
C050003	0407	ANURM184A	334A01C10	28480 014	74	DISTORTION ANALYZER	
0010018	0341	ANURM258D	315	21900 051			01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF
0010020	0342	ANURM25F	162D003	92428 051			01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF
0010019	0343	ANURM25H	157261	66150 051			01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF
0010021	0344	ANURM25J		26648 051			01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF
0010054	0345	ANURM26	294	21900 106	18	GENERATOR, SIGNAL, VHF	
0010060	0346	ANURM26A		106	18	GENERATOR, SIGNAL, VHF	
0010061	0347	ANURM26B	136D15	106	18	GENERATOR, SIGNAL, VHF	
0010062	0067	ANURM26C	100190	87793 106	18	GENERATOR, SIGNAL, VHF	
G032052	0148	ANURM32	SCL1341	49673 020			48 FREQUENCY METER B 49 FREQUENCY METER C
G032053	0149	ANURM32A		49673 020			48 FREQUENCY METER B 49 FREQUENCY METER C
G032012	1744	ANURM43	61	70998 040	61	WATTMETER, RF	
D050052	3608	ANURM43A		91161 998	61	WATTMETER, RF	

PART II TMOE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMOE OTS ETE SPECIFICATIONS

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INDEX NUMBER	TMOE ID	TMOE TYPE	DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
D050022	0350	ANURM44			02199	053	07 SIGNAL GENERATOR, SHF C 04 GENERATOR, SIGNAL, PULSE	07 SIGNAL GENERATOR, SHF C 04 GENERATOR, SIGNAL, PULSE
D050023	0351	ANURM44A		1350000	94486	053	07 SIGNAL GENERATOR, SHF C 04 GENERATOR, SIGNAL, PULSE	07 SIGNAL GENERATOR, SHF C 04 GENERATOR, SIGNAL, PULSE
F050005	0352	ANURM47A			08869	043	44 FIELD STRENGTH METER B 43 FIELD STRENGTH METER A	44 FIELD STRENGTH METER B 43 FIELD STRENGTH METER A
F050004	0353	ANURM47B		MM30A	08869	043	44 FIELD STRENGTH METER B 43 FIELD STRENGTH METER A	44 FIELD STRENGTH METER B 43 FIELD STRENGTH METER A
F050006	0354	ANURM47C		21A	06053	043	44 FIELD STRENGTH METER B 43 FIELD STRENGTH METER A	44 FIELD STRENGTH METER B 43 FIELD STRENGTH METER A
D010126	0355	ANURM48			15196	106	18 GENERATOR, SIGNAL, VHF	
D050019	0356	ANURM49			35225	107		15 SIGNAL GENERATOR, UHF A 17 SIGNAL GENERATOR, VHF A
D050018	0357	ANURM49A		K00000149	35225	107		15 SIGNAL GENERATOR, UHF A 17 SIGNAL GENERATOR, VHF A
K073091	3724	ANURM501		MF105	16665	043		43 FIELD STRENGTH METER A 44 FIELD STRENGTH METER B
D050001	0358	ANURM52		6108E106	28480	053	06 SIGNAL GENERATOR, SHF B	12 SIGNAL GENERATOR, SHF H
D050002	0359	ANURM52A		6108	28480	053	06 SIGNAL GENERATOR, SHF B	12 SIGNAL GENERATOR, SHF H
D050003	0360	ANURM52B		C674100	02372	053	06 SIGNAL GENERATOR, SHF B	12 SIGNAL GENERATOR, SHF H
D010000	4596	ANURM56		617A	28480	107	15 SIGNAL GENERATOR, UHF A	
D080006	0362	ANURM61A		C015303007	99180	053	05 SIGNAL GENERATOR, SHF A	12 SIGNAL GENERATOR, SHF H 16 GENERATOR, SIGNAL, UHF
D050008	0365	ANURM64A1		C01604001	03877	107	16 GENERATOR, SIGNAL, UHF	15 SIGNAL GENERATOR, UHF A
D050009	0366	ANURM64A2		031204000	12365	107	16 GENERATOR, SIGNAL, UHF	15 SIGNAL GENERATOR, UHF A
D050006	0363	ANURM641			76809	107	16 GENERATOR, SIGNAL, UHF	15 SIGNAL GENERATOR, UHF A
D050007	0364	ANURM642		C016104001	76809	107	16 GENERATOR, SIGNAL, UHF	15 SIGNAL GENERATOR, UHF A
D010004	0367	ANURM70			07450	106	18 GENERATOR, SIGNAL, VHF	
C030003	0368	ANURM79			56118	018	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
C032041	0369	ANURM80			35225	018	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	

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PART II TIDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TIDE QTS EYE SPECIFICATIONS

INDEX NUMBER	TIDE TYPE ID DESIGNATOR	MFG MODEL NR	FSCN CODE	FAW FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
G030005	0370 AMURM01		35225 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
K071010	0371 AMURM05		16665 043		43 FIELD STRENGTH METER A 44 FIELD STRENGTH METER B
K071011	0372 AMURM05A		16665 043		43 FIELD STRENGTH METER A 44 FIELD STRENGTH METER B
E013033	0373 AMURM06	67C	70998 040	62 POWER METER, RF IN-LINE	61 WATTMETER, RF
E013034	0374 AMURM06A	6733000	70998 040	62 POWER METER, RF IN-LINE	61 WATTMETER, RF
B021007	0375 AMURM90	40207046	83777 008	25 BRIDGE, UNIVERSAL	
F050002	0376 AMURM91	YN275	30040 043		43 FIELD STRENGTH METER A 44 FIELD STRENGTH METER B
M011122	0377 AMURM93	245A	04901 051		03 SIGNAL GENERATOR, HF 18 GENERATOR, SIGNAL, VHF 17 SIGNAL GENERATOR, VHF A 01 AUDIO OSCILLATOR
M011115	0378 AMURM93A	245B	04901 051		03 SIGNAL GENERATOR, HF 18 GENERATOR, SIGNAL, VHF 17 SIGNAL GENERATOR, VHF A 01 AUDIO OSCILLATOR
E013006	0380 AMURM98	470CW477	28480 040	63 POWER METER, SHF	
G031016	0409 AMUS45	5254R	28480 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
F030002	0410 AMUSH10	651A	80130 004		07 AUDIO INTENSITY METER
C030038	0438 AMUSH105	160R162A	28480 089	51 OSCILLOSCOPE, DC-15MHZ	
C030037	0439 AMUSH105A	160R162A166A	28480 089	51 OSCILLOSCOPE, DC-15MHZ	
A011033	4534 AMUSH106	400E	28480 076	41 VOLTMETER, AC TRUE RMS	
D060013	0440 AMUSH108	180A	28569 047		
D080012	0441 AMUSH108B	C1924A	29504 047		
C030008	0443 AMUSH117	1211E3161	20183 089	51 OSCILLOSCOPE, DC-15MHZ	19 GENERATOR, SIGNAL FUNCTION
C030009	0444 AMUSH117A		20183 089	51 OSCILLOSCOPE, DC-15MHZ	19 GENERATOR, SIGNAL FUNCTION
L150005	0445 AMUSH118R	901765	28569 072		
G050030	0446 AMUSH122A	524C	28480 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	36 TURE TESTER

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PART II TIME CROSS-REFERENCE LIST  
GENERAL PURPOSE TIME OIS ETE SPECIFICATIONS

INDEX NUMBER	TIME ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C012004	3561	AMUSH123	269	55026 998		20 MULTIMETER, DIGITAL HANDHELD
C030006	3612	AMUSH140	170A	28480 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030035	0448	AMUSH151	945MC	80009 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C020021	0449	AMUSH154	317101	80009 089	51 OSCILLOSCOPE, DC-15MHZ	
G032027	0450	AMUSH159	K50110200	35225 020		48 FREQUENCY METER B 49 FREQUENCY METER C 50 FREQUENCY METER D 51 FREQUENCY METER E
G032032	0451	AMUSH159A	K50110200	35225 020		48 FREQUENCY METER B 49 FREQUENCY METER C 50 FREQUENCY METER D 51 FREQUENCY METER E
E013053	0452	AMUSH161	457	11332 040		61 WATTMETER, RF 63 POWER METER, SHF
	4583	AMUSH164	541A	80009 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030006	3615	AMUSH171		93346 998	94 SEMICONDUCTOR TEST SET	
L150026	0454	AMUSH173	244535	072	36 TUBE TESTER	
K090040	0455	AMUSH181	3550A	28480 071	81 TRANSMISSION TEST SET	82 TRANSMISSION TEST SET
K090039	0456	AMUSH181B	3550RC15	28480 071	81 TRANSMISSION TEST SET	82 TRANSMISSION TEST SET
K090084	4413	AMUSH181C	3550R	28480 071	81 TRANSMISSION TEST SET	82 TRANSMISSION TEST SET
C030011	0457	AMUSH182	535A101	80009 089	51 OSCILLOSCOPE, DC-15MHZ	
C030012	0458	AMUSH182A	535A101M	80009 089	51 OSCILLOSCOPE, DC-15MHZ	
A041035	3633	AMUSH183	412A	28480 032	28 MULTIMETER, DIGITAL HANDHELD	
C030013	0459	AMUSH184	RM45A	80009 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030014	0460	AMUSH186	175AH12	28480 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
A041025	0464	AMUSH189	630A	60741 032		28 MULTIMETER, DIGITAL HANDHELD
D080005	0465	AMUSH190	620ARH01	28480 053	07 SIGNAL GENERATOR, SHF C	12 SIGNAL GENERATOR, SHF H
E013014	3677	AMUSH193	431B	28480 041	63 POWER METER, SHF	
D060032	0467	AMUSH203	912473	01113 109	22 SWEEP GENERATOR, UHF/VHF	20 SWEEP GENERATOR, HF

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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE QTS EYE SPECIFICATIONS

INDEX NUMBER	TMDE ID	TMDE TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
D060033	0468	ANUSHM203A	200441	23042 109	22 SWEET GENERATOR, UHF/VHF	20 SWEET GENERATOR, HF
D010063	0469	ANUSHM205	650A	28480 006		01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF
D010081	0470	ANUSHM205A	A. 051	25778 006		01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF
L100009	0472	ANUSHM206	245MA	93346 045	94 SEMICONDUCTOR TEST SET	
L100010	0473	ANUSHM206A	902470	28569 045	94 SEMICONDUCTOR TEST SET	
G050023	0474	ANUSHM207	6871	04692 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050024	0475	ANUSHM207A		13576 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
A041059	1335	ANUSHM210	2606	55026 032		28 MULTIMETER, DIGITAL HANDHELD
D010001	0476	ANUSHM212	7580047001	13499 051		01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF
D080014	0477	ANUSHM213	8614A	28480 107	16 GENERATOR, SIGNAL, UHF	15 SIGNAL GENERATOR, UHF A
D080016	0478	ANUSHM213A	8614B	28480 107	16 GENERATOR, SIGNAL, UHF	15 SIGNAL GENERATOR, UHF A
C030021	1512	ANUSHM218	647	80009 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
D060018	0479	ANUSHM220	5M2000	04423 109	22 SWEET GENERATOR, UHF/VHF	
D060037	0480	ANUSHM221	5M2000	04423 109	79 TELEVISION GENERATOR A	22 SWE GENERATOR, UHF/VHF
D060017	0481	ANUSHM222	5M2000	04423 109	22 SWEET GENERATOR, UHF/VHF	79 TELEVISION GENERATOR A 21 SWEET GENERATOR, SWE
A041018	0482	ANUSHM223		28569 032		28 MULTIMETER, DIGITAL HANDHELD
A011071	0483	ANUSHM224	3400A	28480 080	41 VOLTMETER, AC TRUE RMS	
E020001	0484	ANUSHM227	MF157	03782 043	45 FIELD STRENGTH METER C	46 FIELD STRENGTH METER D
C020056	0411	ANUSHM74	55R	18372 089	51 OSCILLOSCOPE, DC-15MHZ	
D010024	0758	ANUSHM251	1709C	24655 107		15 SIGNAL GENERATOR, UHF A 16 GENERATOR, SIGNAL, UHF 17 SIGNAL GENERATOR, UHF A 18 GENERATOR, SIGNAL, VHF
D010154	0487	ANUSHM252	1715C	24655 106	18 GENERATOR, SIGNAL, VHF	
D040001	0488	ANUSHM253	1218RV	24655 006	01 AUDIO OSCILLATOR	

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PART II TIDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TIDE OTS ETE SPECIFICATIONS

INDEX NUMBER	TIDE TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C020022	0409 AMUSH254	130C	28480 089	51 OSCILLOSCOPE, DC-15MHZ	
D050049	0490 AMUSH255	792A	72314 050	04 GENERATOR, SIGNAL, PULSE	
D040011	0491 AMUSH256	791A	72314 054	19 GENERATOR, SIGNAL FUNCTION	
C070001	0492 AMUSH259	131A	28480 014	74 DISTORTION ANALYZER	
G050040	0412 AMUSH26A	109194	94033 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
E013017	0493 AMUSH260	431C	28480 041	63 POWER METER, SHF	61 WATTMETER, RF
R010024	4570 AMUSH261	415E	28480 063	69 STANDING WAVE RATIO (SWR) METER	
A020012	0495 AMUSH262	560101012	33441 001		29 MULTIMETER, DIGITAL 23 AMMETER, AC, CLAMP-ON 28 MULTIMETER, DIGITAL HANDHELD
A031020	0496 AMUSH263	100	11837 008	25 BRIDGE, UNIVERSAL	
D010130	4019 AMUSH264	652A	28480 047	19 GENERATOR, SIGNAL FUNCTION	
E012016	0497 AMUSH265	400EL02	28480 076	41 VOLTMETER, AC TRUE RMS	
D010109	0498 AMUSH269	1310A	24655 006	01 AUDIO OSCILLATOR	19 GENERATOR, SIGNAL FUNCTION 03 SIGNAL GENERATOR, HF
D010013	0501 AMUSH272	191	80009 051		01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF 17 SIGNAL GENERATOR, VHF A 18 GENERATOR, SIGNAL, VHF
C020009	0502 AMUSH273	453	80009 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
D060036	0503 AMUSH274	270	18786 049	21 SHEEP GENERATOR, SHF	
G032049	0504 AMUSH275	96051A	76487 020		48 FREQUENCY METER B 49 FREQUENCY METER C
C030043	0505 AMUSH281	190AF02	28480 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030044	0506 AMUSH281A	15510PT20	28480 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030045	0507 AMUSH281B	4510H	16152 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030046	0508 AMUSH281C	7603M115	80009 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030047	0509 AMUSH281D	1950	30669 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030048	0510 AMUSH281E	1950A	30669 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	

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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE DTS EYE SPECIFICATIONS

INDEX NUMBER	TMDE TYPE	TMDE ID	DEFIGNATOR	HFC MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C030010	0511	ANUSM296		140ERF02	28480 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
E013012	0512	ANUSM298		43	70998 082			62 POWER METER, RF IN-LINE
A041020	0513	ANUSM303		300M	13913 032	29	MULTIMETER, DIGITAL	
A041021	0514	ANUSM303A		300MA	13913 032	29	MULTIMETER, DIGITAL	
K071014	0515	ANUSM306V			94668 110			70 VOLTMETER, FREQUENCY SELECTIVE 66 SPECTRUM ANALYZER, BASEBAND 64 SIGNAL GENERATOR, TRACKING
K071015	0516	ANUSM306V1		1055	94668 110			70 VOLTMETER, FREQUENCY SELECTIVE 66 SPECTRUM ANALYZER, BASEBAND 64 SIGNAL GENERATOR, TRACKING
C040058	0517	ANUSM307V			28480 062	68	SPECTRUM ANALYZER, RF	
C040059	0518	ANUSM307V1		8410AE14	28480 062	68	SPECTRUM ANALYZER, RF	
D060043	0519	ANUSM308V1		8690RF75	28480 049	21	SINE WAVE GENERATOR, SHF	
C030015	0520	ANUSM309V1		140AE51	28480 089	51	OSCILLOSCOPE, DC-15MHZ	
C030052	0521	ANUSM309V2		1570RH01	28480 089	51	OSCILLOSCOPE, DC-15MHZ	
D010012	0522	ANUSM312		1362	24655 107			15 SIGNAL GENERATOR, UHF A 17 SIGNAL GENERATOR, VHF A 18 GENERATOR, SIGNAL, VHF
D010009	0523	ANUSM313		1211C	24655 106	18	GENERATOR, SIGNAL, VHF	17 SIGNAL GENERATOR, VHF A 03 SIGNAL GENERATOR, HF
A041026	3718	ANUSM319A		2693	55026 032			29 MULTIMETER, DIGITAL
C020035	0413	ANUSM12		94000721	18778 089	51	OSCILLOSCOPE, DC-15MHZ	
C030031	0528	ANUSM320V1		141AE15	28480 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
B010017	0530	ANUSM322V1		219L	77327 063	69	STANDING WAVE RATIO (SWR) METER	
B010018	0531	ANUSM322V2		219	77327 063	69	STANDING WAVE RATIO (SWR) METER	
B010019	0532	ANUSM322V3		1703H	77327 063	69	STANDING WAVE RATIO (SWR) METER	
A042006	0414	ANUSM33			65092 002			23 AMMETER, AC, CLAMP-ON
A041042	1376	ANUSM337		851A03	89536 032			29 MULTIMETER, DIGITAL
C020048	0533	ANUSM339		1700RNP1300	28480 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	

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PART II TMOE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMOE OTS ETE SPECIFICATIONS

INDEX NUMBER	TMOE TYPE ID DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
K000031	0534 AMUSH343	3550AC24	28480 071	81	TRANSMISSION TEST SET	82 TRANSMISSION TEST SET
D040009	0537 AMUSH358	106	80009 054	19	GENERATOR, SIGNAL FUNCTION	
D050038	3617 AMUSH359	115	80009 050	04	GENERATOR, SIGNAL, PULSE	
C070060	4042 AMUSH364V1	R422	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
C010013	0539 AMUSH365V1	7706814	28480 036	92	OSCILLOGRAPHIC RECORDER B	91 OSCILLOGRAPHIC RECORDER A
C040010	0540 AMUSH366V	491	80009 061	68	SPECTRUM ANALYZER, RF	
B010008	0415 AMUSH37	415A	28480 063	69	STANDING WAVE RATIO (SWR) METER	
B010009	0416 AMUSH37A	415F	28480 063	69	STANDING WAVE RATIO (SWR) METER	
B010010	0417 AMUSH37B	809B	28480 063	69	STANDING WAVE RATIO (SWR) METER	
B010011	0418 AMUSH37C		063	69	STANDING WAVE RATIO (SWR) METER	
B010012	0419 AMUSH37D	415E001	28480 063	69	STANDING WAVE RATIO (SWR) METER	
B010013	0420 AMUSH37E	236	77327 063	69	STANDING WAVE RATIO (SWR) METER	
D050048	0541 AMUSH374	111	80009 050	04	GENERATOR, SIGNAL, PULSE	
K090083	1747 AMUSH423	3550AH03	28480 071	81	TRANSMISSION TEST SET	82 TRANSMISSION TEST SET
C040008	1648 AMUSH424	3040A	28480 059			65 SPECTRUM ANALYZER, LOW FREQ 66 SPECTRUM ANALYZER, BASEBAND 68 SPECTRUM ANALYZER, RF
A033026	4839 AMUSH437V1	150304	80009 009	88	CABLE TEST SET (TDR)	
D010006	0421 AMUSH44	608DF02	28480 106	18	GENERATOR, SIGNAL, VHF	
D010067	0422 AMUSH44A	608DF02	28480 106	18	GENERATOR, SIGNAL, VHF	
D010068	0423 AMUSH44B	608FF02	28480 106	17	SIGNAL GENERATOR, VHF A	
D010090	4041 AMUSH44C	100717	25778 106	18	GENERATOR, SIGNAL, VHF	
	5105 AMUSH451		032	29	MULTIMETER, DIGITAL	
C010008	0425 AMUSH46	R1202931	96795 036	91	OSCILLOGRAPHIC RECORDER A	
D080037	1865 AMUSH47	626A	28480 049	21	SWEEP GENERATOR, SHF	
D080008	0426 AMUSH48	627A	28480 053	09	SIGNAL GENERATOR, SHF E	12 SIGNAL GENERATOR, SHF H
C070057	0427 AMUSH50	LA239C	35225 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	



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PART II INDEX CROSS-REFERENCE LIST  
GENERAL PURPOSE INDEX OF ETE SPECIFICATIONS

INDEX NUMBER	INDEX TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C020053	0429 AMUSH50A	279C	35225 089	51	OSCILLOSCOPE, DC-15MHZ	
C020054	0429 AMUSH50B	K00000177	35225 089	51	OSCILLOSCOPE, DC-15MHZ	
C020055	0430 AMUSH50C		92161 089	51	OSCILLOSCOPE, DC-15MHZ	
C030022	0542 AMUSH504	533A	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
	3611 AMUSH81	535W5354C	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
E013027	0433 AMUSH83	MC18	44987 010	42	CALORIMETER	
C020051	0434 AMUSH89	310A	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
C020050	0435 AMUSH89B	1408	28569 089	51	OSCILLOSCOPE, DC-15MHZ	
P070074	0436 AMUSH90	8522160	18076 118	29	MULTIMETER, DIGITAL	28 MULTIMETER, DIGITAL HANDHELD
A012033	0437 AMUSH98	801	89536 077	29	MULTIMETER, DIGITAL	
M015034	0543 AMVDH2		07214 089	51	OSCILLOSCOPE, DC-15MHZ	
D080004	0544 MC376		80063 106	18	GENERATOR, SIGNAL VHF	03 SIGNAL GENERATOR, HF
G030004	0547 CM77AUSH	5408	28480 019	58	FREQUENCY COUNTER(10HZ TO 18GHZ)	
	4918 CM77USH		019	58	FREQUENCY COUNTER(10HZ TO 18GHZ)	
G050049	0549 CP1033U	5221C	28480 017	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
	4659 CP1049PU	5245M	28480 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
G050043	0550 CP1100U	5100R51108	28480 051	58	FREQUENCY COUNTER(10HZ TO 18GHZ)	
G050042	0551 CP1101U	TTS58A	06819 023	76	PULSE NOISE COUNTER	02 TRANSMISSION TEST SET
G050070	5111 CP1321YC		018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
G050027	0548 CP777AU	5245L	28480 019	58	FREQUENCY COUNTER(10HZ TO 18GHZ)	
G031019	0554 CV7002U	5251R	28480 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
G031011	0556 CV7003AU	5254R	28480 019	58	FREQUENCY COUNTER(10HZ TO 18GHZ)	
G031021	3540 CV7003BU	5254C	28480 019	58	FREQUENCY COUNTER(10HZ TO 18GHZ)	
G031010	3727 CV734URM	2590R	28480 125	59	FREQ CTR(1300KHZ-18GHZ RF PULSE)	
M016014	3619 CV7350U	1292	06811 019	58	FREQUENCY COUNTER(10HZ TO 18GHZ)	
G031017	0552 CV301U	207H	28480 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	

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PART II TIDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TIDE OTS ETE SPECIFICATIONS

INDEX NUMBER	TIDE TYPE ID DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
6031022	0558 CV3059U	5255A	28480 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
6040054	3761 CV3427V1U	3730A	28480 062	68	SPECTRUM ANALYZER, RF	
6040035	4805 DT542U	3703R	28480 061			56 MICROWAVE LINK ANALYZER
6040072	0562 DT550U	3703R	28480 030	56	MICROWAVE LINK ANALYZER	
6013005	2285 FR-40/CSN-1	71-9A2	20950 020	47	FREQUENCY METER A	
	0670 FR125C		020	54	FREQUENCY METER H	
6032046	0570 FR126U	X532R	28480 020	53	FREQUENCY METER G	
6032051	0571 FR146U	M410A	00929 020	52	FREQUENCY METER F	
6050039	0573 FR174U	5532A	28480 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
6032034	0574 FR194U	H532A	28480 020	53	FREQUENCY METER G	
6032001	0575 FR205U	128A	94668 110			70 VOLTMETER, FREQUENCY SELECTIVE
6032060	0576 FR208V1U	5210A001	28480 020			47 FREQUENCY METER A
6032037	0564 FR38AU	524R	28480 020	48	FREQUENCY METER B	
6032036	0565 FR38DU	107000	94033 020	48	FREQUENCY METER B	
6032038	0566 FR38EU		00346 020	48	FREQUENCY METER B	
6032050	0563 FR4U	SCDL166412	56118 020	48	FREQUENCY METER B	
	0664 FR406541	P3	03508 020	47	FREQUENCY METER A	
6050025	0567 FR80U	527R	28480 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
6032039	0569 FR91U	FSC173R	16786 020	52	FREQUENCY METER F	
6040065	1692 FI414U	8445R	28480 062	68	SPECTRUM ANALYZER, RF	
6032048	0589 ID1173CR	950	14814 019	58	FREQUENCY COUNTER(10HZ TO 18GHZ)	
6043062	1439 ID2101U	34750A	28480 032	29	MULTIMETER, DIGITAL	
6020014	0585 ID451U	203351	49675 112	71	AUDIO SYSTEM TEST SET	
6032016	1549 IM156100R2		15859 998			71 OSCILLOGRAPHIC RECORDER A 92 OSCILLOGRAPHIC RECORDER B
8010021	0592 IM157AU	4158H10	28480 063	69	STANDING WAVE RATIO (SWR) METER	

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PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME DTS ETE SPECIFICATIONS

INDEX NUMBER	TME ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
8010001	0593	IM157RU	4150	28480 063	69	STANDING WAVE RATIO (SWR) METER	
8010023	0594	IM157CU	8013A	06473 063	69	STANDING WAVE RATIO (SWR) METER	
8010025	0595	IM157FU	227DS37	77327 063	69	STANDING WAVE RATIO (SWR) METER	
8010020	0591	IM157U	4150	28480 063	69	STANDING WAVE RATIO (SWR) METER	
8010015	0597	IM157RU	751	11332 063			69 STANDING WAVE RATIO (SWR) METER
8010014	0596	IM175U	751	11332 063	69	STANDING WAVE RATIO (SWR) METER	
C040040	4086	IP1018U	360R	94668 060	66	SPECTRUM ANALYZER, BASEBAND	
C040047	1699	IP121APGR	141F	28480 061	68	SPECTRUM ANALYZER, RF	
C040051	0599	IP173AU	SR8A	03782 061	68	SPECTRUM ANALYZER, RF	
C040052	0600	IP173RU	SR8A	03782 061	68	SPECTRUM ANALYZER, RF	
C040053	0582	IP173CU		03782 061	68	SPECTRUM ANALYZER, RF	
C040050	0598	IP173U	SR8	03782 061	68	SPECTRUM ANALYZER, RF	
A011002	0602	IS185	433	65092 076	41	VOLTMETER, AC TRUE RMS	28 MULTIMETER, DIGITAL HANDHELD 29 MULTIMETER, DIGITAL
C032033	0577	1129	71170R	80063 020			48 FREQUENCY METER B 49 FREQUENCY METER C
C050056	0603	LA707A	5233L	28480 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
L080015	0606	LM66	HE0000223	55026 032	28	MULTIMETER, DIGITAL HANDHELD	
		4029	MDA3ARM		047	GENERATOR, SIGNAL FUNCTION	
C040003	0646	MD913PU	3702A	28480 030	56	MICROWAVE LINK ANALYZER	
E013041	0649	MF11AU		91161 040	61	WATTMETER, RF	
E013042	0650	MF11BU		02230 040	61	WATTMETER, RF	
E013043	0651	MF11CU		91161 040	61	WATTMETER, RF	
E013040	0648	MF11U	7503	70998 040	61	WATTMETER, RF	
A013018	0677	MF147U	FSH	54005 076	41	VOLTMETER, AC TRUE RMS	28 MULTIMETER, DIGITAL HANDHELD 29 MULTIMETER, DIGITAL
C050016	0678	MF153U	1912A	24655 014	74	DISTORTION ANALYZER	

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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE OTS EYE SPECIFICATIONS

INDEX NUMBER	TMDE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A013013	1974	MF15AU	904	65092 998	23 AMMETER, AC, CLAMP-ON	38 VOLTMETER, DIFFERENTIAL
A012014	0679	MF161U	801	89536 077		69 STANDING WAVE RATIO (SWR) METER
B010004	0601	MF165C	92500	12991 063	62 POWER METER, RF IN-LINE	29 MULTIMETER, DIGITAL
A013009	0603	MF202RU	803R	89536 121	38 VOLTMETER, DIFFERENTIAL	41 VOLTMETER, AC TRUE RMS
A013008	0602	MF202U	803	89536 121	38 VOLTMETER, DIFFERENTIAL	29 MULTIMETER, DIGITAL
						41 VOLTMETER, AC TRUE RMS
E013018	0654	MF22APCM		92161 071	81 TRANSMISSION TEST SET	82 TRANSMISSION TEST SET
E013016	0653	MF22PCM	5491	92161 071	81 TRANSMISSION TEST SET	82 TRANSMISSION TEST SET
A020025	0604	MF221U	253983	65092 001		23 AMMETER, AC, CLAMP-ON
B022016	0605	MF223APM129	2028R	07342 074	85 VECTOR VOLTMETER	
	0607	MF227AU	353	33430 077	29 MULTIMETER, DIGITAL	28 MULTIMETER, DIGITAL HANDHELD
A012005	0606	MF227U	MY17C	85711 077	29 MULTIMETER, DIGITAL	28 MULTIMETER, DIGITAL HANDHELD
A012017	0608	MF231FV05	3440A	28480 078	29 MULTIMETER, DIGITAL	
K020011	0600	MF254AU	FL301	83003 112	71 AUDIO SYSTEM TEST SET	
K020012	0609	MF254U	590A1	73446 112	71 AUDIO SYSTEM TEST SET	
A043004	0656	MF26AU	410R	28480 032	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
						40 VOLTMETER, RF
A043005	0657	MF26RU		91820 032	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
						40 VOLTMETER, RF
A043006	0658	MF26CU	260000	99395 032	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
						40 VOLTMETER, RF
A043007	0659	MF26DU		032	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
						40 VOLTMETER, RF
A043003	0655	MF26U	410A	28480 032	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
						40 VOLTMETER, RF
A011029	0691	MF260U	403R	28480 076	41 VOLTMETER, AC TRUE RMS	28 MULTIMETER, DIGITAL HANDHELD
						29 MULTIMETER, DIGITAL
						81 TRANSMISSION TEST SET
						82 TRANSMISSION TEST SET
A011037	0692	MF262U	305A	50423 076	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL

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PART II TMD CROSS-REFERENCE LIST  
GENERAL PURPOSE TMD QTS ETC SPECIFICATIONS

INDEX NUMBER	TMD TYPE ID	DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A011044	0693	ME295U	1258	94668 110	70 VOLTMETER, FREQUENCY SELECTIVE	41 VOLTMETER, AC TRUE RMS
A011016	0661	MF30AU	400D	28480 076	41 VOLTMETER, AC TRUE RMS	06 VOICE BAND ANALYZER
A011017	0662	MF308U	513A	26687 076	41 VOLTMETER, AC TRUE RMS	01 TRANSMISSION TEST SET 29 MULTIMETER, DIGITAL
A011012	1622	ME30CU	513A	26687 076	41 VOLTMETER, AC TRUE RMS	01 TRANSMISSION TEST SET 29 MULTIMETER, DIGITAL
A011010	0663	ME30DU	111A	35124 076	41 VOLTMETER, AC TRUE RMS	01 TRANSMISSION TEST SET 29 MULTIMETER, DIGITAL
A011019	3623	ME30EU	998101	12365 076	41 VOLTMETER, AC TRUE RMS	01 TRANSMISSION TEST SET 29 MULTIMETER, DIGITAL
A011074	4046	MF30FU		25778 076	41 VOLTMETER, AC TRUE RMS	01 TRANSMISSION TEST SET 29 MULTIMETER, DIGITAL
A011015	0660	MF30U	400C	28480 076	41 VOLTMETER, AC TRUE RMS	01 TRANSMISSION TEST SET 29 MULTIMETER, DIGITAL
A041028	0674	ME307AU	410C	28480 032		40 VOLTMETER, RF 28 MULTIMETER, DIGITAL HANDHELD 29 MULTIMETER, DIGITAL
A011008	0695	MF31RU	3400A	28480 080	41 VOLTMETER, AC TRUE RMS	
J050062	0696	MF33U	217A	16335 032	29 MULTIMETER, DIGITAL	28 MULTIMETER, DIGITAL HANDHELD
A011032	0677	ME334U	1091	00638 076	41 VOLTMETER, AC TRUE RMS	29 MULTIMETER, DIGITAL
C050015	0698	ME33AURM	332A	28480 014	74 DISTORTION ANALYZER	
A043022	0699	ME33RU	145	50423 032	29 MULTIMETER, DIGITAL	28 MULTIMETER, DIGITAL HANDHELD
A043022	0700	MF339U	415E	28480 998	69 STANDING WAVE RATIO (SWR) METER	
A011011	0701	MF340U	400FEL02	28480 076	41 VOLTMETER, AC TRUE RMS	
K020013	0702	MF356U	0P192A	14140 005		71 AUDIO SYSTEM TEST SET 01 TRANSMISSION TEST SET 02 TRANSMISSION TEST SET
A031001	0703	MF36RU	610	96332 035		27 MEGOHMMETER 30 DIMMETER 28 MULTIMETER, DIGITAL HANDHELD 29 MULTIMETER, DIGITAL

PART II INDE CROSS-REFERENCE LIST  
GENERAL PURPOSE INDE OTS ETE SPECIFICATIONS

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INDEX NUMBER	INDE TYPE ID DESIGNATOR	MFG. MODEL NR	FSCM CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A043014	0704 MF1700	427A01	28480 032	29 MULTIMETER, DIGITAL	28 MULTIMETER, DIGITAL HANDHELD
	0740 MF405U	400LR	28480 076	41 VOLTMETER, AC TRUE RMS	
A041029	0705 ME419U	270	55026 032		28 MULTIMETER, DIGITAL HANDHELD
A013020	0706 MF425U	400L	28480 076	41 VOLTMETER, AC TRUE RMS	28 MULTIMETER, DIGITAL HANDHELD
A011020	2791 ME426U	3406A	28480 079	40 VOLTMETER, RF	29 MULTIMETER, DIGITAL
J050017	0707 ME441U	432A	28480 041	63 POWER METER, SHF	62 POWER METER, RF IN-LINE
A011021	0708 MF444U	370A	50423 076	41 VOLTMETER, AC TRUE RMS	29 MULTIMETER, DIGITAL
A041023	0709 ME450U	260	16902 032	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
A011041	0710 ME451C	307A	94668 076	41 VOLTMETER, AC TRUE RMS	
A020023	0711 ME452U	9	55026 003		29 MULTIMETER, DIGITAL
A013019	5178 MF457U	7562A	28480 078	29 MULTIMETER, DIGITAL	28 MULTIMETER, DIGITAL HANDHELD
A011072	0717 MF459U	400EL	28480 076	41 VOLTMETER, AC TRUE RMS	
A032013	1392 MF481U	1864	24655 027	26 INSULATION, TEST SET	
A041055	1397 MF482PU	3450R	28480 032	29 MULTIMETER, DIGITAL	
A020024	2019 MF484U	428R	28480 002	23 AMMETER, AC, CLAMP-ON	
A042003	1768 MF489U	749	65092 032	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
C064002	1629 MF490U	48A3	50319 037	78 PHASE JITTER METER	62 TRANSMISSION TEST SET
C032009	1741 ME495U	537A	28480 020	53 FREQUENCY METER G	
	4792 MF496U	245	51692 032	29 MULTIMETER, DIGITAL	
A043012	3565 MF498U	34702A	28480 032	29 MULTIMETER, DIGITAL	
E013031	0652 MF51UP	GS1909A	65092 041	63 POWER METER, SHF	
A020022	4544 MF511U	9312902001	65092 032		28 MULTIMETER, DIGITAL HANDHELD
B022002	1436 MF512U	8405A	28480 074	85 VECTOR VOLTMETER	
	0665 MF56154	117	96762 998	40 VOLTMETER, RF	

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PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME DTS ETE SPECIFICATIONS

INDEX NUMBER	TME TYPE ID DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C060011	0667 MF57AU		81865 031	57	MODULATION METER	
A011019	1674 ME57RU		998	57	MODULATION METER	
C060010	0666 ME57U		81865 031	57	MODULATION METER	
A011052	0667 MF6U	100A	05535 076	40	VOLTMETER, RF	61 WATTMETER, RF
A011077	5160 ME6U	400GL	28480 998	41	VOLTMETER, AC TRUE RMS	
F050003	0669 MF61GRG9		80063 043	43	FIELD STRENGTH METER A	
A020007	0669 ME65AU	196645	65092 001	23	AMMETER, AC, CLAMP-ON	
A020005	3729 ME65U	131173	28569 001	23	AMMETER, AC, CLAMP-ON	
A011019	3625 ME69U	6151000	70998 998	61	WATTMETER, RF	
K090021	0671 ME71AFCC	108A	94668 005	81	TRANSMISSION TEST SET	82 TRANSMISSION TEST SET 41 VOLTMETER, AC TRUE RMS
K090022	0672 ME71NFCC	108B	94668 005	81	TRANSMISSION TEST SET	82 TRANSMISSION TEST SET 41 VOLTMETER, AC TRUE RMS
K090023	0673 ME71CFCC	520074	07450 005	81	TRANSMISSION TEST SET	82 TRANSMISSION TEST SET 41 VOLTMETER, AC TRUE RMS
K090020	4410 MF71FCC	K515538	64959 005	81	TRANSMISSION TEST SET	82 TRANSMISSION TEST SET 41 VOLTMETER, AC TRUE RMS
A011019	1626 ME77		032	28	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
E013030	0674 ME82U	MM265	65092 040	61	WATTMETER, RF	
F080005	0675 ME86U	163762	65092 119	90	OPTICAL TEST SET	
A042020	0676 MF87U	280	65092 032	28	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
E013014	1682 ME88U	411A	28480 079	40	VOLTMETER, RF	
A011009	1184 MILN16034A		032	28	MULTIMETER, DIGITAL HANDHELD	
C060003	0737 MX1636AU	526B	28480 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
	0912 MX198U	CDR3	93790 011	25	BRIDGE, UNIVERSAL	
C030025	0738 MX2310G	535	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
C032043	0741 MX2930AUSM	167A	28480 089	51	OSCILLOSCOPE, DC-15MHZ	
C032044	0742 MX2930RUSM	167RH02	28480 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	

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PART II THOE CROSS-REFERENCE LIST  
GENERAL PURPOSE THOE DTS EYE SPECIFICATIONS

INDEX NUMBER	THOE TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C032045	0743 M12910CUSH	1804A2	28569 091	S2 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C032046	0744 M12930DUSH	K50430100	35225 091	S2 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C033018	0746 M129620USH105	1640M	28480 089	S1 OSCILLOSCOPE, DC-15MHZ	
C033014	0745 M129670USH105	1804A7	28569 089	S1 OSCILLOSCOPE, DC-15MHZ	
0060005	0746 M129364APUSH	8670R	28480 049	21 SHEEP GENERATOR, SHF	
C020025	0740 N5110U	122A	28480 089	S1 OSCILLOSCOPE, DC-15MHZ	
C020029	0781 N5123U	RM504MD233A	80009 089	S1 OSCILLOSCOPE, DC-15MHZ	
C020030	1516 N5124C1M19	170A	28480 089	S1 OSCILLOSCOPE, DC-15MHZ	
C020023	0782 N51325PA	321	80009 089	S1 OSCILLOSCOPE, DC-15MHZ	
C020023	0783 N5172APUSH218	647A	80009 091	S2 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C031002	4023 N5193PAU	140R	28480 091	S2 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030016	0784 N5173PU	140A	28480 085	S6 OSCILLOSCOPE, DC-500MHZ	
C031012	4900 N5207PUSH3	181A	28480 089	S1 OSCILLOSCOPE, DC-15MHZ	
C030033	0786 N5213PAU	561R	80009 089	S1 OSCILLOSCOPE, DC-15MHZ	
C030032	0785 N5233PU	561A	80009 089	S1 OSCILLOSCOPE, DC-15MHZ	
C020031	0787 N5242U	503	80009 089	S1 OSCILLOSCOPE, DC-15MHZ	
C020046	4541 N5261AV1U	47507	80009 090	S4 OSCILLOSCOPE, DUAL TRACE, DC200MHZ	
C020003	0788 N5261U	475A	80009 085	S3 OSCILLOSCOPE, DUAL TRACE, STORAGE	
C031004	0789 N5267PU	7423A	80009 085	S4 OSCILLOSCOPE, DUAL TRACE, DC200MHZ	
C031011	1457 N5266PU	7844	80009 080	S5 OSCILLOSCOPE, DUAL TRACE, DC400MHZ	
C020019	0790 N55001U	104AR	72314 089	S1 OSCILLOSCOPE, DC-15MHZ	
C020039	0773 N59AU	49	19133 089	S1 OSCILLOSCOPE, DC-15MHZ	
C020040	0774 N59AU	902706	28569 089	S1 OSCILLOSCOPE, DC-15MHZ	
C020041	0775 N59CU	MAV115	91820 089	S1 OSCILLOSCOPE, DC-15MHZ	
C020042	0776 N59DU		35533 089	S1 OSCILLOSCOPE, DC-15MHZ	
C020043	0777 N59EU		59025 089	S1 OSCILLOSCOPE, DC-15MHZ	



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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE DTS EYE SPECIFICATIONS

INDEX NUMBER	TMDE TYPE ID	DESIGNATOR	MFG. MODEL NR	FSCM CODE	FAN CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C020044	0770	NSHFU			091	S1 OSCILLOSCOPE, DC-15MHZ	
C020045	0770	NSRGU	1506	34487 091	S1	OSCILLOSCOPE, DC-15MHZ	
C020030	0772	NSRU	C5035	20569 089	S1	OSCILLOSCOPE, DC-15MHZ	
D010014	3544	Q1316G	1099079G1	90340 053	05	SIGNAL GENERATOR, SHF A	
D070020	1921	Q13216SM	1M77944	09553 034	50	NOISE POWER RATIO TEST SET	
D070027	1901	Q1637U	F2M	04423 109			22 SWEET GENERATOR, UHF/VHF 21 SWEET GENERATOR, SHF
C040079	1677	Q1736U	3736A	20480 030	56	MICROWAVE LINK ANALYZER	
C040080	1679	Q1737U	3739A	20480 030	56	MICROWAVE LINK ANALYZER	
D010117	3720	Q450U	200ARR	20480 006	01	AUDIO OSCILLATOR	
D010130	1931	Q450U	1302A	24655 006	01	AUDIO OSCILLATOR	
D070025	0791	PL1178U	3304A	20480 047			19 GENERATOR, SIGNAL FUNCTION
M013007	4616	PL1230USM30A	MA93M	20480 998	21	SWEET GENERATOR, SHF	
D080029	1904	PL1240AUSM30A	MA93R001	20480 049	21	SWEET GENERATOR, SHF	
D070015	4760	PL1240USM30A	MA93M	20480 049	21	SWEET GENERATOR, SHF	
D070014	4604	PL1240USM30BY	MA93RH01	20480 049	21	SWEET GENERATOR, SHF	
D070021	0794	PL1241AUSM30BY	MA93M	20480 052	20	SWEET GENERATOR, HF	
D070043	3590	PL1241RUSM30A	MA93R001	20480 052	20	SWEET GENERATOR, HF	
D070013	0795	PL1242USM30B	MA93M	20480 049			21 SWEET GENERATOR, SHF 22 SWEET GENERATOR, UHF/VHF
D070041	0796	PL1243USM30A	MA93A	20480 049	21	SWEET GENERATOR, SHF	
		1915	PL1244U	27591 970			50 NOISE POWER RATIO TEST SET
D070033	0797	PL1245U	3305A	20480 001	19	GENERATOR, SIGNAL FUNCTION	
C032013	0799	PL1292U	A7	80009 097	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C032012	0799	PL1793U	1A2	80009 097	57	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C031010	0900	PL1303U	5742A	20480 010	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
D070001	0901	PL1304USM30A	MA93M	20480 049	21	SWEET GENERATOR, SHF	

PART II TMDE CROSS-REFERENCE LIST  
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INDEX NUMBER	TMDE TYPE ID DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
	3732 PL1306AU	8903A	28480 990		91 OSCILLOGRAPHIC RECORDER A 92 OSCILLOGRAPHIC RECORDER B
C032023	0803 PL1310U	2A63	80009 080	55 OSCILLOSCOPE, DUAL TRACE, DC400MHZ	
C033007	0804 PL1311U	2R67	80009 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C032018	0805 PL1312U	3A72	80009 089	51 OSCILLOSCOPE, DC-15MHZ	
C032054	4043 PL1313U	1405A	28480 089	51 OSCILLOSCOPE, DC-15MHZ	
C031001	0806 PL1320U	5257A	28480 019	58 FREQUENCY COUNTER(10HZ TO 18GHZ)	
J050046	0807 PL1323U	1411A	28480 089	51 OSCILLOSCOPE, DC-15MHZ	
D070028	0808 PL1343U	L6M	04423 108		22 SWEEP GENERATOR, UHF/VHF
A012016	0809 PL1344U	5265A	28480 070	29 MULTIMETER, DIGITAL	
	2075 PL1356U	8693A	28480 049		21 SWEEP GENERATOR, SHF
J060001	0810 PL1373U	56	80009 089	51 OSCILLOSCOPE, DC-15MHZ	
C032047	1479 PL1378U	1803A	28480 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C040046	2692 PL1387U	8556A	28480 081		19 GENERATOR, SIGNAL FUNCTION 65 SPECTRUM ANALYZER, LOW FREQ 66 SPECTRUM ANALYZER, BASEBAND
C040060	1146 PL1388U	8552R	28480 061		65 SPECTRUM ANALYZER, LOW FREQ 66 SPECTRUM ANALYZER, BASEBAND
G050077	3556 PL1389U	5267A	28480 010	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
C010018	1459 PL1390U	8801A	28480 036		91 OSCILLOGRAPHIC RECORDER A 92 OSCILLOGRAPHIC RECORDER B
J050059	1625 PL1391U	7LS	80009 059	68 SPECTRUM ANALYZER, RF	
C040077	1626 PL1392U	7L12	80009 061	68 SPECTRUM ANALYZER, RF	
C040029	1671 PL1394U	1705A	28480 061		56 MICROWAVE LINK ANALYZER
C040068	1676 PL1399U	8553R	28480 061	68 SPECTRUM ANALYZER, RF	
C040083	3546 PL1400U	8555A	28480 062	68 SPECTRUM ANALYZER, RF	
1160006	1674 PL1401U	1718A	28480 030		56 MICROWAVE LINK ANALYZER
C040078	1675 PL1405V1U	1716A	28480 030		56 MICROWAVE LINK ANALYZER

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GENERAL PURPOSE TMD DTS ETE SPECIFICATIONS

INDEX NUMBER	TMD ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C040012	1697	PL1406U	8554R	28480 061	68	SPECTRUM ANALYZER, RF	
C010002	1547	R0426U	7418A	28480 036	92	OSCILLOGRAPHIC RECORDER B	91 OSCILLOGRAPHIC RECORDER A
C010007	0813	R0180G	R0264200	96795 036	92	OSCILLOGRAPHIC RECORDER B	91 OSCILLOGRAPHIC RECORDER A
C010010	0814	R0207ASW12V	R0237100	96795 036	91	OSCILLOGRAPHIC RECORDER A	
C010009	0815	R0425U	722	28480 036	91	OSCILLOGRAPHIC RECORDER A	92 OSCILLOGRAPHIC RECORDER B
C012004	3557	R0458V1U	7035R	28480 084	98	X-Y RECORDER	
C010014	0816	R0460V1U	7702R	28480 036	91	OSCILLOGRAPHIC RECORDER A	92 OSCILLOGRAPHIC RECORDER B
C040034	1672	R7049V1U	77028004	28480 061			56 MICROWAVE LINK ANALYZER
A041067	4058	S07110A	7110A	06811 091	29	MULTIMETER, DIGITAL	
D020018	0892	SG1018U	3347A	28480 055	13	SIGNAL GENERATOR, THER NOISEA	
D010157	5110	SG1019FLR9V	3300481151	15770 051	03	SIGNAL GENERATOR, HF	
D080050	0893	SG1023U	209A	28480 006	01	AUDIO OSCILLATOR	
D010102	0894	SG1038U	7701A	28480 106	18	GENERATOR, SIGNAL, VHF	03 SIGNAL GENERATOR, HF
K100031	0895	SG1054G	PG303A	96238 067	34	TELETYPE TEST SET GENERATOR	35 TELETYPE TEST SET
D040007	0838	SG106U	105	80009 054	19	GENERATOR, SIGNAL FUNCTION	
	3659	SG107MSA6	206A	28480 998	01	AUDIO OSCILLATOR	
D010053	2071	SG1093U	R640R	28480 106	18	GENERATOR, SIGNAL, VHF	17 SIGNAL GENERATOR, VHF A
C035006	0896	SG1094U	552	80009 009	08	CABLE TEST SET (TDR)	
D080029	1902	SG1102U	F51A	07421 047	19	GENERATOR, SIGNAL FUNCTION	
D050010	2067	SG1105U	R013R	28480 050			04 GENERATOR, SIGNAL, PULSE
D080084	2072	SG1112V1U	R640R0PT004	28480 106	18	GENERATOR, SIGNAL, VHF	
D020011	1972	SG1114U	7M7816A	09553 034	59	NOISE GENERATOR, TWELVE CHANNELS	
D060051	3714	SG1121V1U	R620C	28480 056	21	SWEEP GENERATOR, SHF	
C043043	3585	SG1172U	R441A	28480 056	64	SIGNAL GENERATOR, TRACKING	
C040037	1690	SG1175U	R444A	28480 006	64	SIGNAL GENERATOR, TRACKING	
D010158	1468	SG1178U	654A	28480 006	01	AUDIO OSCILLATOR	

PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME DTS FTE SPECIFICATIONS

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INDEX NUMBER	TME TYPE ID	DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
0000069	1893	SC1132U	146MTSC	80009 060	00	TELEVISION GENERATOR C	19 GENERATOR, SIGNAL FUNCTION
0000086	4122	SC1133U	3312A	20460 047			
0010099	4872	SC1145U			053	07 SIGNAL GENERATOR, SHF C	
0010006	0822	SC12U		15196 106	10	GENERATOR, SIGNAL, VHF	03 SIGNAL GENERATOR, HF
0010031	0823	SC13ARM		16636 106	10	GENERATOR, SIGNAL, VHF	
0010148	0824	SC15PCM	5490		006	01 AUDIO OSCILLATOR	
0010111	0825	SC20U	658	14140 051			03 SIGNAL GENERATOR, HF 01 AUDIO OSCILLATOR
0000017	0840	SC29AU	180	21764 047	19	GENERATOR, SIGNAL FUNCTION	
0000015	0819	SC29RU	W1	08775 047	19	GENERATOR, SIGNAL FUNCTION	
0000003	0842	SC29RU	902733	20569 054	19	GENERATOR, SIGNAL FUNCTION	
0000004	0841	SC29RU	802296	20569 054	19	GENERATOR, SIGNAL FUNCTION	
0010112	0843	SC309CRC47	608C	20460 106	10	GENERATOR, SIGNAL, VHF	
0000011	0845	SC321AU		80063 047	19	GENERATOR, SIGNAL FUNCTION	01 AUDIO OSCILLATOR
0000009	0846	SC321RU		24635 047	19	GENERATOR, SIGNAL FUNCTION	01 AUDIO OSCILLATOR
0000010	0844	SC321U	5533	83563 047	19	GENERATOR, SIGNAL FUNCTION	01 AUDIO OSCILLATOR
0000001	0847	SC33AU	380A	80138 108	22	SWEEP GENERATOR, UHF/VHF	
0020002	2576	SC337U	51UARGON	80138 050			04 GENERATOR, SIGNAL, PULSE
0010009	0849	SC340AC	612A	20480 107			15 SIGNAL GENERATOR, UHF A 17 SIGNAL GENERATOR, VHF A 18 GENERATOR, SIGNAL, VHF
0050039	0850	SC343UPM15A		15196 050	04	GENERATOR, SIGNAL, PULSE	
0050038	0852	SC36AU	5070H	80138 050			04 GENERATOR, SIGNAL, PULSE 18 GENERATOR, SIGNAL, VHF
0050037	0851	SC36AU	570A	80138 050			04 GENERATOR, SIGNAL, PULSE 18 GENERATOR, SIGNAL, VHF
0000035	0853	SC407U	1000	80138 109			22 SWEEP GENERATOR, UHF/VHF 20 SWEEP GENERATOR, HF 21 SWEEP GENERATOR, SHF

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INDEX NUMBER	TMD ID	TMD TYPE DESIGNATOR	MFG MODEL NR	FSCN	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
0020001	0854	SC419U	503	11332	055	13 SIGNAL GENERATOR, THER NOISEA	
0010155	0826	SC42URM10	1107A	24655	006	01 AUDIO OSCILLATOR	
0010127	1813	SC453RU	1390A	24655	055	14 SIGNAL GENERATOR, THER NOISEB	
0020004	4102	SC453U	1390B	24655	055	14 SIGNAL GENERATOR, THER NOISEB	
0050011	0855	SC475APS94	100720	06344	050	04 GENERATOR, SIGNAL-PULSE	
0010101	0856	SC479CRM50	606A	28480	051		03 SIGNAL GENERATOR, HF 01 AUDIO OSCILLATOR
0010153	0857	SC510U	201C	28480	006	01 AUDIO OSCILLATOR	
0010153	0858	SC511U	606A	28480	051		03 SIGNAL GENERATOR, HF 01 AUDIO OSCILLATOR
0010134	0859	SC543AU	204RH07	28480	006	01 AUDIO OSCILLATOR	
0060022	0861	SC575U	1FR6AA	80138	108		20 SWEEP GENERATOR, HF 22 SWEEP GENERATOR, UHF/VHF
0010115	0862	SC578U	650A	28480	006	01 AUDIO OSCILLATOR	
0010108	3346	SC590U	202CP	28480	006	01 AUDIO OSCILLATOR	
0060030	0863	SC593U	900R	01113	052		20 SWEEP GENERATOR, HF 22 SWEEP GENERATOR, UHF/VHF
0010076	0864	SC621U	202C	28480	006	01 AUDIO OSCILLATOR	
0050040	0877	SC63RUPM10	15R02	36004	050	04 GENERATOR, SIGNAL-PULSE	
0010074	0866	SC632AU	204R	28480	006	01 AUDIO OSCILLATOR	
0010075	0867	SC632RU	204R02	28480	006	01 AUDIO OSCILLATOR	
0010073	0865	SC632U	204R01	28480	006	01 AUDIO OSCILLATOR	
0010121	0828	SC66ARM5	1114	00781	106	18 GENERATOR, SIGNAL-VHF	
0010122	0829	SC66ARM5	16850	00781	106	18 GENERATOR, SIGNAL-VHF	
0010065	0868	SC676C	1220A5	24655	053	06 SIGNAL GENERATOR, SHF B	
0060021	0969	SC677U	MS90DH	23042	109		22 SWEEP GENERATOR, UHF/VHF
0020021	3541	SC678C	6347A	28480	055	13 SIGNAL GENERATOR, THER NOISEA	
0060003	0870	SC691U	866A	80138	052		20 SWEEP GENERATOR, HF

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D060016	0871 SGARBPUSH219	SH2000	04423	052		22 SWEEP GENERATOR, UHF/VHF 21 SWEEP GENERATOR, SHF
D050028	0870 SG69APPML	212A	28480	050	04 GENERATOR, SIGNAL, PULSE	
D050029	0818 SG69PPML	212A	28480	050	04 GENERATOR, SIGNAL, PULSE	
D010070	0833 SG71AFCC	733A	28480	006	01 AUDIO OSCILLATOR	
D010071	0834 SG71RFCC	733A	28480	006	01 AUDIO OSCILLATOR	
D010072	0835 SG71CFCC	190	67116	006	01 AUDIO OSCILLATOR	
D010069	0832 SG71FCC	733A	28480	006	01 AUDIO OSCILLATOR	
D040005	1733 SG735URN	8616A	28480	049	21 SWEEP GENERATOR, SHF	
D080055	0872 SG747U	3300A	28480	047	19 GENERATOR, SIGNAL FUNCTION	
D010150	0874 SG763AU	652AN02	28480	006	01 AUDIO OSCILLATOR	
D010149	0873 SG763U	652A	28480	006	01 AUDIO OSCILLATOR	
D080057	0875 SG769U	111	23338	047	19 GENERATOR, SIGNAL FUNCTION	
D010023	0876 SG770U	241A	28480	006	01 AUDIO OSCILLATOR	
D040002	0877 SG772C	105HND1498	80009	054	19 GENERATOR, SIGNAL FUNCTION	
	1834 SG827U		24655	998	14 SIGNAL GENERATOR, THER NOISE	
D010125	1655 SG837U	1210C	24655	106	01 AUDIO OSCILLATOR	
C033004	0879 SG855U	1A20A	28480	091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
D080066	0880 SG867U	470A500	98329	106	18 GENERATOR, SIGNAL, VHF	
D060004	0881 SG888U	200315	23042	109		22 SWEEP GENERATOR, UHF/VHF 20 SWEEP GENERATOR, HF
D060019	0836 SG92U	110A	80138	052		19 GENERATOR, SIGNAL FUNCTION 20 SWEEP GENERATOR, HF 22 SWEEP GENERATOR, UHF/VHF
D080007	0882 SG944U	6208	28480	053	07 SIGNAL GENERATOR, SHF C	
D010126	1676 SG967U	204C	28480	006		01 AUDIO OSCILLATOR
	4809 SG968U	711B	28480	054	04 GENERATOR, SIGNAL, PULSE	19 GENERATOR, SIGNAL FUNCTION
D010114	0883 SG969U	608F	28480	106	18 GENERATOR, SIGNAL, VHF	

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GENERAL PURPOSE THDE QTS ETE SPECIFICATIONS

INDEX NUMBER	THDE IN	THDE TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
D010011	0817	SC97ERC	614A	28480 107	16 GENERATOR, SIGNAL, UHF	15 SIGNAL GENERATOR, UHF A
D010028	4089	SC970U	651801	28480 047	19 GENERATOR, SIGNAL FUNCTION	
D060034	0804	SC972U	601	01113 108	22 SWEEP GENERATOR, UHF/VHF	
D010010	0805	SC975U	3200R	28480 106	18 GENERATOR, SIGNAL, VHF	
D020010	0806	SC978U	141A	28480 055	13 SIGNAL GENERATOR, THER MOISEA	
D020010	0807	SC979U	142A	28480 998	13 SIGNAL GENERATOR, THER MOISEA	
D010091	0808	SC981U	17539A	06019 006	01 AUDIO OSCILLATOR	
D010151	0809	SC984U	6518002	28480 006	01 AUDIO OSCILLATOR	
D060040	0890	SC987U	6310851	03782 109	21 SWEEP GENERATOR, SHF	
D060039	0891	SC990U	6940H01	28480 049	21 SWEEP GENERATOR, SHF	
D010081	0471	SC996U	145B	28480 998	13 SIGNAL GENERATOR, THER MOISEA	
K090061	2357	T4085U	3555B	28480 071	81 TRANSMISSION TEST SET	82 TRANSMISSION TEST SET
G050051	0966	T01028U	5243L	28480 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
C033021	0967	T01085U	7853AM11	80009 089	51 OSCILLOSCOPE, DC-15MHZ	
C033002	1502	T01159U	7853A	80009 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C035002	3501	T01160PU	7512	80009 009	88 CABLE TEST SET (TDR)	
C034002	3573	T01161U	7711	80009 085	56 OSCILLOSCOPE, DC-500MHZ	
G050020	2113	T01209U	5300A5301A	28480 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050074	2215	T01211U	5302A	28480 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050052	2240	T012591U	5340A	28480 019	58 FREQUENCY COUNTER (10HZ TO 18GHZ)	
D060012	0968	T0503305H	7413A	30669 081	19 GENERATOR, SIGNAL FUNCTION	
C033016	0969	T0503705H509	1421A	28480 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
G050008	4108	T0705U	5262A	28480 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050046	0963	T0874U	161	15356 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050013	0965	T0875APU	103784FH	06811 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050014	0964	T0875PU	1037R	06811 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	

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INDEX NUMBER	TMD TYPE ID DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
K100020	1128 TS10A0AGG	T0A2NB	96230 066	33	TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
K100010	1129 TS10A0BGG	ASD100A	05729 066	33	TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
K100007	1127 TS10A0CGG	T0A2NB	96230 066	33	TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
L100012	1132 TS1100AU		93346 045	94	SEMICONDUCTOR TEST SET	
L100011	1131 TS1100U		94660 045	94	SEMICONDUCTOR TEST SET	
E013055	0961 TS11BAAP	693011	70998 040	61	WATTMETER, RF	
E013054	0960 TS11BAP	693	70998 040	61	WATTMETER, RF	
E013052	0962 TS125AP		82057 040			63 POWER METER, SHF
E013003	1130 TS1205URH120	164FMH	94660 082	62	POWER METER, RF IN-LINE	
K090041	0963 TS140PCM	5409	11975 071	81	TRANSMISSION TEST SET	82 TRANSMISSION TEST SET
F060006	0952 TS15CAP	M1398	91820 062	68	SPECTRUM ANALYZER, RF	
		S01	021	89	GAUSS METER	
K100012	1141 TS1512.A.BCGM	005D0ACV	96230 067	34	TELETYPE TEST SET GENERATOR	35 TELETYPE TEST SET
D050012	0973 TS155AUP		80034 053			05 SIGNAL GENERATOR, SHF A 04 GENERATOR, SIGNAL, PULSE
D050013	0974 TS155RUP		28400 053			05 SIGNAL GENERATOR, SHF A 04 GENERATOR, SIGNAL, PULSE
D050014	0975 TS155TUP	15X107	89194 053			05 SIGNAL GENERATOR, SHF A 04 GENERATOR, SIGNAL, PULSE
F012018	0980 TS187AU		81530 032	28	MULTIMETER, DIGITAL HANDHELD	
E012019	0981 TS187BU		74096 032	28	MULTIMETER, DIGITAL HANDHELD	
E012017	0979 TS187U		032	28	MULTIMETER, DIGITAL HANDHELD	
C040001	4773 TS1870AU	702A	28400 075			65 SPECTRUM ANALYZER, LOW FREQ 66 SPECTRUM ANALYZER, BASEBAND
C040056	1167 TS18700U	702AP	28400 059			65 SPECTRUM ANALYZER, LOW FREQ 66 SPECTRUM ANALYZER, BASEBAND
L100018	1169 TS1876AU	219C	24624 045	94	SEMICONDUCTOR TEST SET	
L100006	1170 TS1876BU	245MF	24624 045	94	SEMICONDUCTOR TEST SET	



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L100007	1171	TS103ACU		34639 045	94	SEMICONDUCTOR TEST SET	
L100021	3716	TS1036DU	902501	20569 045	94	SEMICONDUCTOR TEST SET	
L100008	1168	TS1036U	219R	94668 045	94	SEMICONDUCTOR TEST SET	
G032002	0942	TS106DUP		21900 020			
G032003	0983	TS106FUP	3170	37093 020			48 FREQUENCY METER B 49 FREQUENCY METER C 52 FREQUENCY METER F 53 FREQUENCY METER G
G032004	0994	TS106FUP	77373170	51865 020			48 FREQUENCY METER B 49 FREQUENCY METER C 52 FREQUENCY METER F 53 FREQUENCY METER G
C040028	3737	TS1071FPM	LCA1	06101 060	66	SPECTRUM ANALYZER, BASEBAND	
K100016	4016	TS24.8TC		066	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR
C033016	0950	TS28TC		998	34	TELETYPE TEST SET GENERATOR	
K100017	0951	TS28TC	500R	39314 067	35	TELETYPE TEST SET	34 TELETYPE TEST SET GENERATOR
L100005	1191	TS2086U	T122	14558 045	94	SEMICONDUCTOR TEST SET	
K100015	1187	TS2255G	7412	80257 067	34	TELETYPE TEST SET GENERATOR	35 TELETYPE TEST SET
K100019	1188	TS2256G	07403	14031 066	33	TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
C040011	1192	TS2333USM	310A	28480 060	66	SPECTRUM ANALYZER, BASEBAND	
K080004	1193	TS2393G	DAC7	96238 066	33	TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
C050002	1194	TS2394G	331AR	28480 014	74	DISTORTION ANALYZER	
K073077	1196	TS2395AG	140A	94668 016	75	ENVELOPE DELAY TEST SET	82 TRANSMISSION TEST SET
K073076	1195	TS2395G	140R	94668 016	75	ENVELOPE DELAY TEST SET	82 TRANSMISSION TEST SET
K073023	1197	TS2436G	142A	20480 033	13	SIGNAL GENERATOR, THER NOISEA	
	1176	TS257ARW		032	28	MULTIMETER, DIGITAL HANDHELD	
K070044	0954	TS26ATSM	121956	82066 032	28	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL

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PART II TMOE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMOE DTS ETE SPECIFICATIONS

INDEX NUMBER	TMOE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
K090043	0955	TS26RTSM		88562	032	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
K090042	0953	TS26TSM	3240	31713	032	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
K073072	1200	TS2609AU	4110070	70998	040	61 WATTMETER, RF	
K073071	1199	TS2609U	4110000	70998	040	61 WATTMETER, RF	
K090009	1207	TS2669AGCH	4908	03860	016	75 ENVELOPE DELAY TEST SET	82 TRANSMISSION TEST SET
K090008	1206	TS2669GCM	490A	03860	016	75 ENVELOPE DELAY TEST SET	82 TRANSMISSION TEST SET
K073031	1208	TS2677FRM	22821	50040	004	87 AUDIO INTENSITY METER	
L010006	0989	TS268AU	C11603A	80077	045	94 SEMICONDUCTOR TEST SET	
L010007	0990	TS268AJ	C11603A	80077	045	94 SEMICONDUCTOR TEST SET	
L010008	0991	TS268CU		74096	045	94 SEMICONDUCTOR TEST SET	
L010009	0992	TS268DU	J105	82854	045	94 SEMICONDUCTOR TEST SET	
L010010	0993	TS268EU	TS26A	94518	045	94 SEMICONDUCTOR TEST SET	
L010005	0988	TS26AU	TMM10RL	80077	045	94 SEMICONDUCTOR TEST SET	
K090056	0957	TS27ATSM	713003		032		73 DIAL EQUIPMENT TEST SET 28 MULTIMETER, DIGITAL HANDHELD 81 TRANSMISSION TEST SET
K090055	0958	TS27RTSM	FTS27R	00798	032		73 DIAL EQUIPMENT TEST SET 28 MULTIMETER, DIGITAL HANDHELD 81 TRANSMISSION TEST SET
K090057	0956	TS27TSM	0166237	64959	032		73 DIAL EQUIPMENT TEST SET 28 MULTIMETER, DIGITAL HANDHELD 81 TRANSMISSION TEST SET
K050009	2433	TS2721U	305	94668	110		73 DIAL EQUIPMENT TEST SET 28 MULTIMETER, DIGITAL HANDHELD 81 TRANSMISSION TEST SET
	1210	TS2843U	883AR	89536	121	38 VOLTMETER, DIFFERENTIAL	70 VOLTMETER, FREQUENCY SELECTIVE 86 VOICE BAND ANALYZER 66 SPECTRUM ANALYZER, BASEBAND 64 SIGNAL GENERATOR, TRACKING
K020016	1212	TS2844SH23	09616900601A	22915	112		29 MULTIMETER, DIGITAL 41 VOLTMETER, AC TRUE RMS
E012013	3711	TS287CM		49652	032	28 MULTIMETER, DIGITAL HANDHELD	71 AUDIO SYSTEM TEST SET
A033017	1213	TS2894ALM70A	15700001	19397	032	29 MULTIMETER, DIGITAL	

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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE QTS ETC SPECIFICATIONS

INDEX NUMBER	TMDE ID	TYPE OF SIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A041044	0994	TS297U		71440 032	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
C012001	1518	TS3012U	175	28480 089		98 X-Y RECORDER
C040076	1220	TS3066V2U	312A	28480 110		70 VOLTMETER, FREQUENCY SELECTIVE
C040086	3563	TS3066V3U	312B	28480 110		70 VOLTMETER, FREQUENCY SELECTIVE
D010039	0995	TS312AF5M1	200CDR	28480 006	01 AUDIO OSCILLATOR	
D010040	0996	TS312AF5M1	20200	01486 006	01 AUDIO OSCILLATOR	
D010030	0997	TS312F5M1	200CR	28480 006	01 AUDIO OSCILLATOR	
C040033	1222	TS3150U	RTASUR3	03782 060	66 SPECTRUM ANALYZER, BASEBAND	
K090082	1223	TS3157U	TT54AMRV	95104 071		01 TRANSMISSION TEST SET 73 DIAL EQUIPMENT TEST SET
	3352	TS3170AU	360R	94668 060	66 SPECTRUM ANALYZER, BASEBAND	
K050005	1225	TS3171U	TT537R	06819 071	01 TRANSMISSION TEST SET	82 TRANSMISSION TEST SET
D080056	1226	TS3176USM373	TT526R	06819 122	73 DIAL EQUIPMENT TEST SET	
K090002	1227	TS3178U	J94002020	64959 122		73 DIAL EQUIPMENT TEST SET
A033014	1228	TS3187U	4901A	28480 009		08 CABLE TEST SET (TOR)
A031027	1237	TS31221U	63220	07239 035	31 OHMMETER, EARTH TESTER	
C040026	1238	TS31237U	725	06811 061	68 SPECTRUM ANALYZER, RF	
C050016	1239	TS3178U	615350	06811 018	57 UNIVERSAL COUNTER IDC TO 500MHZ	
K090014	1241	TS3129U	236A	28480 006	01 AUDIO OSCILLATOR	
K080015	2361	TS3178C	DM5103A	96238 066	33 TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
A013002	0998	TS3140U	182097	65092 076	29 MULTIMETER, DIGITAL	
K090007	1242	TS31401TSC30B	5770871	49956 006	01 AUDIO OSCILLATOR	
K090068	2390	TS31470U	1700	50572 013	72 DATA ERROR TEST SET	
C040069	1615	TS3147U	TT54CP	06819 071	01 TRANSMISSION TEST SET	82 TRANSMISSION TEST SET
A041015	1000	TS3128U		77221 032	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
A041014	0999	TS3127U	972	65092 032	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL

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PART II TMD CROSS-REFERENCE LIST  
GENERAL PURPOSE TMD EYE SPECIFICATIONS

INDEX NUMBER	TMD TYPE	DESIGNATOR	HEG MODEL NR	FSCM	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C040005	5109	TS3545U	27010C	00752	061		68 SPECTRUM ANALYZER, RF
E013061	4010	TS3546U	460R	11332	041	63 POWER METER, SHF	
A033019	1412	TS3606V1U	4910F	20400	009		88 CABLE TEST SET (TDR)
C040062	1670	TS3620V1U	3580A	20400	059	65 SPECTRUM ANALYZER, LOW FREQ	
K090001	2305	TS3629U	707R	27364	122	73 DIAL EQUIPMENT TEST SET	
	4657	TS3641U	7002	91417	013	72 DATA ERROR TEST SET	
C050033	4093	TS3662U	5320AH42	20400	018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
B022022	1400	TS3792U	3575A	20400	038	60 PHASE METER	
	1172	TS380U		032	28	MULTIMETER, DIGITAL HANDHELD	
D010041	1002	TS382AU	200C	99072	006	01 AUDIO OSCILLATOR	
D010042	1003	TS382RU		006	01	AUDIO OSCILLATOR	
D010043	1004	TS382CU		99072	006	01 AUDIO OSCILLATOR	
D010044	1005	TS382DU		78796	006	01 AUDIO OSCILLATOR	
D010045	1006	TS382EU		82076	006	01 AUDIO OSCILLATOR	
D010046	4090	TS382FU		006	01	AUDIO OSCILLATOR	
D010022	1001	TS382U	200C	20400	006	01 AUDIO OSCILLATOR	
K100022	1008	TS383AGG	DND4DTS	59433	066	33 TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
K100023	1009	TS383MGG	MXND4MUZ6	59433	066	33 TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
K100021	1007	TS383CG	DND4	59433	066	33 TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
D000002	1010	TS403AU	616A	20400	053	05 SIGNAL GENERATOR, SHF A	12 SIGNAL GENERATOR, SHF H
D000003	1011	TS403RU	D015103006	11242	107	05 SIGNAL GENERATOR, SHF A	12 SIGNAL GENERATOR, SHF H
C030034	1152	TS41RU		04901	107		16 GENERATOR, SIGNAL, UHF 10 GENERATOR, SIGNAL, VHF
D000060	1012	TS419U	H1Z		107	16 GENERATOR, SIGNAL, UHF	15 SIGNAL GENERATOR, UHF A 05 SIGNAL GENERATOR, SHF A
K090051	1014	TS420AU	76C	64959	006		01 AUDIO OSCILLATOR
K090050	1015	TS420RU	76C	64959	006		01 AUDIO OSCILLATOR

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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE DTS ETE SPECIFICATIONS

INDEX NUMBER	TMDE TYPE ID	DESIGNATOR	MFG MODEL NR	FSCN	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
K090049	1013	TS420U	76A	64959	006		01 AUDIO OSCILLATOR
D010033	1017	TS421AU	205AGM02	28480	006	01 AUDIO OSCILLATOR	
D010034	1018	TS421AU	2975H	28569	006	01 AUDIO OSCILLATOR	
D010035	1019	TS421CU	F370A	29805	006	01 AUDIO OSCILLATOR	
D010032	1016	TS421U	205AC	28480	006	01 AUDIO OSCILLATOR	
A012026	1021	TS443U	I	65092	077	29 MULTIMETER, DIGITAL	
D060007	1024	TS452AU		34184	106	20 SWEEP GENERATOR, HF	
D060008	1025	TS452AU		36004	106	20 SWEEP GENERATOR, HF	
D060009	1026	TS452CU		36004	106	20 SWEEP GENERATOR, HF	
D060010	1027	TS452DU		36004	106	20 SWEEP GENERATOR, HF	
D060011	1028	TS452EU			106	20 SWEEP GENERATOR, HF	
D060006	1023	TS452U		50304	106	20 SWEEP GENERATOR, HF	
D010036	1032	TS497AURR			106	18 GENERATOR, SIGNAL, VHF	17 SIGNAL GENERATOR, VHF A
D010038	1034	TS497CURR	SM8334504	04423	106	18 GENERATOR, SIGNAL, VHF	17 SIGNAL GENERATOR, VHF A
D010029	1031	TS497URR	608C	28480	106	18 GENERATOR, SIGNAL, VHF	17 SIGNAL GENERATOR, VHF A
A043028	1036	TS505AU	PL3000	77221	032		29 MULTIMETER, DIGITAL 28 MULTIMETER, DIGITAL HANDHELD 40 VOLTMEER, RF
A043027	1037	TS505BU	D11700	94066	032		29 MULTIMETER, DIGITAL 28 MULTIMETER, DIGITAL HANDHELD 40 VOLTMEER, RF
A043026	1038	TS505CU			032		29 MULTIMETER, DIGITAL 28 MULTIMETER, DIGITAL HANDHELD 40 VOLTMEER, RF
A043025	1039	TS505DU			032		29 MULTIMETER, DIGITAL 28 MULTIMETER, DIGITAL HANDHELD 40 VOLTMEER, RF
A043030	1040	TS505EU	EAD197129	02581	032		29 MULTIMETER, DIGITAL 28 MULTIMETER, DIGITAL HANDHELD 40 VOLTMEER, RF
A043029	1035	TS505U	123		032		29 MULTIMETER, DIGITAL

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PART II TMOE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMOE OTS ETE SPECIFICATIONS

INDEX NUMBER	TMOE ID	TMOE TYPE	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
K090025	1045	T5559AFT	2409	14140 071	01 TRANSMISSION TEST SET	02 TRANSMISSION TEST SET
K090026	1046	T5559BFT	349	14140 071	01 TRANSMISSION TEST SET	02 TRANSMISSION TEST SET
K090027	1047	T5559CFT	34C	14140 071	01 TRANSMISSION TEST SET	02 TRANSMISSION TEST SET
K090028	0734	T5559DFT	T335T5559	51865 071	01 TRANSMISSION TEST SET	02 TRANSMISSION TEST SET
K090029	1049	T5559EFT	20203A	13175 071	01 TRANSMISSION TEST SET	02 TRANSMISSION TEST SET
K090024	1044	T5559DFT	2A	64959 071	01 TRANSMISSION TEST SET	02 TRANSMISSION TEST SET
K090013	1050	T5563AFT	01AM	64959 003	29 MULTIMETER, DIGITAL	02 TRANSMISSION TEST SET
K090046	1051	T5569FT	30A	64959 071	01 TRANSMISSION TEST SET	02 TRANSMISSION TEST SET
	1637	T5583AU	E136204	35225 998	19 GENERATOR, SIGNAL FUNCTION	
	1636	T5583U	210A	28480 998	19 GENERATOR, SIGNAL FUNCTION	
D050050	1059	T5592AUPM15	AS1018	00505 050	04 GENERATOR, SIGNAL, PULSE	
D050051	1058	T5592UPM15	382663F	050	04 GENERATOR, SIGNAL, PULSE	
C012004	1558	T5611CFG	CAL1672	64959 998	33 TELETYPE TEST SET ANALYZER	
C040061	1041	T5615AU	300A	28480 059	65 SPECTRUM ANALYZER, LOW FREQ	
C040063	1062	T5615AU	300A	28480 059	65 SPECTRUM ANALYZER, LOW FREQ	
C040017	1060	T5615U	736A	24655 059	65 SPECTRUM ANALYZER, LOW FREQ	
8023002	1064	T5617AU	T5617	51865 042	93 O-METER	
8023003	1065	T5617CU		51865 042	93 O-METER	
8023001	1063	T5617U	160A	04901 042	93 O-METER	
D080053	1073	T5622AU	17500500	77327 062	68 SPECTRUM ANALYZER, RF	
D080054	1066	T5622U	P12651	94406 062	68 SPECTRUM ANALYZER, RF	
K020002	1069	T5629AU		50304 005	81 TRANSMISSION TEST SET	
K020003	1716	T5629AU		14140 005	81 TRANSMISSION TEST SET	
K020004	1070	T5629CU		53527 005	81 TRANSMISSION TEST SET	
K020005	1071	T5629DU	TR924	14140 005	81 TRANSMISSION TEST SET	

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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE OTS ETE SPECIFICATIONS

INDEX NUMBER	TMDE ID	TMDE TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
K020006	1072	TS629EU	0211AD3	25572 005	01	TRANSMISSION TEST SET	
K020001	1068	TS629U	TR924R	14140 005	01	TRANSMISSION TEST SET	
	3654	TS657EG	119A	64959 998	35	TELETYPE TEST SET	33 TELETYPE TEST SET ANALYZER 34 TELETYPE TEST SET GENERATOR
	3639	TS659UC	FDS8MF	59433 998	35	TELETYPE TEST SET	33 TELETYPE TEST SET ANALYZER 34 TELETYPE TEST SET GENERATOR
	3655	TS660UC	161A1	64959 998	33	TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
K090010	1091	TS716U	224	02230 071	01	TRANSMISSION TEST SET	02 TRANSMISSION TEST SET
C040091	1093	TS723AU	110R	20400 014	74	DISTORTION ANALYZER	
C040092	1094	TS723RU	164	14140 014	74	DISTORTION ANALYZER	
	1095	TS723CU	10000	99395 014	74	DISTORTION ANALYZER	
C040094	1096	TS723DU	10000	99395 014	74	DISTORTION ANALYZER	
C040090	1092	TS723U	110R	20400 014	74	DISTORTION ANALYZER	
E013024	1097	TS730URM	5756011	01723 040	61	WATTMETER, RF	
K090058	1100	TS762TC	MUS2120	14140 071	01	TRANSMISSION TEST SET	02 TRANSMISSION TEST SET
K100029	1105	TS785AGG	GA10767	64959 066	33	TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
K100020	1104	TS785CG	K75041A	64959 066	33	TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
K100005	1106	TS790UCM1		96230 067	34	TELETYPE TEST SET GENERATOR	
K100004	1107	TS800UCM1		96230 066	33	TELETYPE TEST SET ANALYZER	
G020011	1109	TS805AU	A11AL	24655 065			95 STROBOSCOPE
G020012	1110	TS805BU	510AL	83490 065			95 STROBOSCOPE
G020013	1111	TS805CU	451AL	00708 065			95 STROBOSCOPE
G020014	1112	TS805DU	510R	83490 065			95 STROBOSCOPE
G020010	1108	TS805U	A11R	24655 065			95 STROBOSCOPE
L140003	1113	TS806U	441	80740 117			32 FACUMETER ELECTRONIC
K090052	1115	TS816U	MS14103	64959 118	20	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
K090017	1117	TS903U	1147	90649 122	01	TRANSMISSION TEST SET	

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PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME OYS EYE SPECIFICATIONS

INDEX NUMBER	TME TYPE ID DESIGNATOR	MFG MODEL NR	FSCN	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
K100025	1120 TS917AGG		96230 066	33	TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
K100013	1119 TS917GG	TD42	96230 066	33	TELETYPE TEST SET ANALYZER	35 TELETYPE TEST SET
L140004	1257 TU27E	F5000	84997 117			32 TACHOMETER ELECTRONIC
L150034	1266 TV13AU	K200	82199 072	36	TUBE TESTER	
L150033	1265 TV13U	K100	82199 072	36	TUBE TESTER	
L150028	1259 TV2AU		072	36	TUBE TESTER	
L150029	1260 TV28U		072	36	TUBE TESTER	
L150030	1261 TV2CU		072	36	TUBE TESTER	
L150027	1258 TV2U		60741 072	36	TUBE TESTER	
L150020	1262 TV6U	602	86270 072	36	TUBE TESTER	
L150023	1264 TV7DU		00641 072	36	TUBE TESTER	
L150024	1263 TV7U		28569 072	36	TUBE TESTER	
C040071	1674 T133V1U	3710A	28480 030			56 MICROWAVE LINK ANALYZER
A031038	4770 T27B		87991 035			30 OHMMETER
A033004	0919 T4200		19203 025			26 INSULATION, TEST SET 28 MULTIMETER, DIGITAL HANDHELD
A031039	4771 T44A		83290 035	31	OHMMETER, EARTH TESTER	
A033024	4055 XM91		032	29	MULTIMETER, DIGITAL	
A033021	4054 XM92		19200 032	29	MULTIMETER, DIGITAL	
B021011	1277 TM11AU		008	25	BRIDGE, UNIVERSAL	
B021012	1278 TM11BU		12019 008	25	BRIDGE, UNIVERSAL	
B021010	1276 TM11U	712	13259 008	25	BRIDGE, UNIVERSAL	
A032020	1280 TM21AU	5C1000	66150 025	26	INSULATION, TEST SET	
A032021	1281 TM21BU	A08400020	66150 025	26	INSULATION, TEST SET	
B021004	1272 TM1AU		77569 011	25	BRIDGE, UNIVERSAL	
B021003	1271 TM1U		54294 011	25	BRIDGE, UNIVERSAL	



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PART II THOSE CROSS-REFERENCE LIST  
GENERAL PURPOSE THOSE OF EYE SPECIFICATIONS

INDEX NUMBER	THOSE TYPE DESIGNATION	MFG MODEL NR	FSCM CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A031021	1274 7M4AU	7015L	66150 008	25 BRIDGE, UNIVERSAL	
A031022	1275 7M4RU	6100	66150 008	25 BRIDGE, UNIVERSAL	
A031020	1273 7M4U	5300	31922 008	25 BRIDGE, UNIVERSAL	
A031002	1282 7M5AU	LR01	05721 035		28 MULTIMETER, DIGITAL HANDHELD 30 OHMMETER 27 MEGOHMMETER
B021008	1284 7M61U	2508	28480 008	25 BRIDGE, UNIVERSAL	
L170001	1285 7M6RU	0585C4R	88869 008	25 BRIDGE, UNIVERSAL	
	3631 7M69A	16509702	24655 998	25 BRIDGE, UNIVERSAL	
	3630 7M69U	16509701	24655 008	25 BRIDGE, UNIVERSAL	
B021009	1286 7M70U	250DE	11837 008	25 BRIDGE, UNIVERSAL	
B022010	1287 7M71U	4760A	28480 008	25 BRIDGE, UNIVERSAL	
B022015	1489 7474U	4800A	28480 073	83 VECTOR IMPEDANCE METER A	
A042011	4059	AC1	13648 001		23 AMMETER, AC, CLAMP-ON 28 MULTIMETER, DIGITAL HANDHELD
A042014	3688	AK4	03927 002		23 AMMETER, AC, CLAMP-ON
A042015	3687	AK4	24446 002		23 AMMETER, AC, CLAMP-ON
B060042	4311	AL650	83282 049	23 SHEEP GENERATOR, SHF	
K090059	2416	APF1292	04468 998	28 MULTIMETER, DIGITAL HANDHELD	
A013013	1976	AP9	03516 998	23 AMMETER, AC, CLAMP-ON	
B010120	1598	ARIC	15196 998	57 MODULATION METER	
C020001	1541	AM60400C	72264 998	91 OSCILLOGRAPHIC RECORDER A	92 OSCILLOGRAPHIC RECORDER B
A020020	1977	AV	13648 002	23 AMMETER, AC, CLAMP-ON	
G031004	3747	AG61149	77327 053	11 SIGNAL GENERATOR, SHF G	14 SIGNAL GENERATOR, SHF G
D070009	3246	A7006	77327 053		03 SIGNAL GENERATOR, HF
K073090	2349	AC126M	94486 106	18 GENERATOR, SIGNAL, VHF	25 BRIDGE, UNIVERSAL
B021013	1289	BF60	91790 011		

PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE QTS ETC SPECIFICATIONS

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INDEX NUMBER	TMDE ID	TYPE DESIGNATOR	MFC MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A031033	1290		RM819A	98869 035			30 OHMMETER 31 OHMMETER, EARTH TESTER
A032011	1288		R2500	00426 025			30 OHMMETER 31 OHMMETER, EARTH TESTER
D050030	3251		R78	06692 050	04 GENERATOR, SIGNAL, PULSE		
D050030	3252		R78402	13327 998			
G032025	1803		R79	22336 998	89 GAUSS METER		
G023009	5125		RM91	17613 117			
0020008	2681		C	55719 117	32 TACHOMETER ELECTRONIC		
0023013	3745		CC120	82386 025			32 TACHOMETER ELECTRONIC
C060003	4091		CE3	26193 031	57 MODULATION METER		28 MULTIMETER, DIGITAL HANDHELD 29 INSULATION, TEST SET 27 MEGOHMMETER
E020003	4113		CF1M	82199 043	46 FIELD STRENGTH METER D		
A042015	3690		CH7	13688 998			28 MULTIMETER, DIGITAL HANDHELD 29 MULTIMETER, DIGITAL 23 AMMETER, AC, CLAMP-ON
G032044	1808		CL400	14704 998	47 FREQUENCY METER A		
K090088	4915		CMC714XY	27634 122			73 DIAL EQUIPMENT TEST SET
G032044	1809		CPM500	91161 998	42 CALORIMETER		
D060025	4110		CP932R	80138 052			20 SWEEP GENERATOR, HF 22 SWEEP GENERATOR, UHF/VHF
A033006	1293		CT3	31989 118			28 MULTIMETER, DIGITAL HANDHELD
D010093	3264		CV0100PM	65092 006	01 AUDIO OSCILLATOR		
D070005	1765		CH7006	77327 053	12 SIGNAL GENERATOR, SHF H		05 SIGNAL GENERATOR, SHF A 06 SIGNAL GENERATOR, SHF B
L150008	2537		C2767	32385 072			36 TUBE TESTER
G032044	1807		C410R	00929 020	53 FREQUENCY METER G		
K080016	4408		DA404	96238 066	33 TELETYPE TEST SET ANALYZER		
K073090	2350		DA404A	96238 998	33 TELETYPE TEST SET ANALYZER		35 TELETYPE TEST SET

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PART II THDE CROSS-REFERENCE LIST  
GENERAL PURPOSE THDE OTS ETE SPECIFICATIONS

THDE X NUMBER	THDE ID	THDE TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
0022008	1546		DA410	65092 037	70 PHASE JITTER METER	
0011066	2654		DCHI	03782 077		20 MULTIMETER, DIGITAL HANDHELD
G050086	4143		DC502	80009 019	50 FREQUENCY COUNTER(10HZ TO 10GHZ)	
G050083	4142		DC503	80009 018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050081	4141		DC505A	80009 010	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050080	4140		DN501	80009 010	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
A041063	3747		DM501	80009 032	29 MULTIMETER, DIGITAL	
A041064	4057		DM502	80009 032		29 MULTIMETER, DIGITAL 41 VOLTMMETER, AC TRUE RMS
A042015	3702		DP170	04244 998	29 MULTIMETER, DIGITAL	
A031014	1980		DP170	20569 008	25 BRIDGE, UNIVERSAL	
	1981		DY2401A1H19	06401 998	29 MULTIMETER, DIGITAL	
G050036	2143		DY2501	30534 010	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
C020005	1545		D75	80009 091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
M010004	2539		DM0795	77272 111		97 VIBRATION TEST SET
A013029	1983		ELECCI	32590 076	29 MULTIMETER, DIGITAL	
K070025	2352		FMA910	88869 043	46 FIELD STRENGTH METER D	45 FIELD STRENGTH METER C
A043049	1297		ESUMIX	88869 077		26 INSULATION, TEST SET
A013030	1269		ESV	32590 076	29 MULTIMETER, DIGITAL	
A013029	4052		F1000	07239 008	25 BRIDGE, UNIVERSAL	
B022009	3267		F1002	07239 008	25 BRIDGE, UNIVERSAL	
C011013	4848		F1140T	94426 036		92 OSCILLOGRAPHIC RECORDER B
A013023	1982		F3067	07239 008		25 BRIDGE, UNIVERSAL
A031025	1295		F3108	07239 008	25 BRIDGE, UNIVERSAL	
A043037	1296		F9500B1400	15381 032	29 MULTIMETER, DIGITAL	
D080074	4117		FG501	80009 047	19 GENERATOR, SIGNAL FUNCTION	

PART II TIDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TIDE OTS ETE SPECIFICATIONS

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INDEX NUMBER	TIDE ID	TYPE DESIGNATOR	MFG MODEL NR	FAM FSCM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
0070061	4114		FS303	80009 047	19 GENERATOR, SIGNAL FUNCTION	19 GENERATOR, SIGNAL FUNCTION
0080087	4123		FG5047	80009 047	04 GENERATOR, SIGNAL, PULSE	04 GENERATOR, SIGNAL, PULSE
0080076	1013		FM7	998	40 FREQUENCY METER B 49 FREQUENCY METER C 50 FREQUENCY METER D 51 FREQUENCY METER E	40 FREQUENCY METER B 49 FREQUENCY METER C 50 FREQUENCY METER D 51 FREQUENCY METER E
LC030016	4415		FS130MI	80009 032	19 GENERATOR, SIGNAL FUNCTION	19 GENERATOR, SIGNAL FUNCTION
0010017	1599		FS3A	07421 006	01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF	01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF
0080076	1812		FS3A	07421 047	19 GENERATOR, SIGNAL FUNCTION	19 GENERATOR, SIGNAL FUNCTION
P070071	3068		GS18209	80600 054	19 GENERATOR, SIGNAL FUNCTION	19 GENERATOR, SIGNAL FUNCTION
G032059	3270		GS32A	28480 020	53 FREQUENCY METER G	53 FREQUENCY METER G
A072028	4278		HR225XC	025	26 INSULATION, TEST SET	26 INSULATION, TEST SET
A030002	4050		HMI	55853 035	30 OHMMETER	30 OHMMETER
G020004	1815		H2	08151 117	32 TACHOMETER ELECTRONIC	32 TACHOMETER ELECTRONIC
D020006	1907		H347A	28480 055	13 SIGNAL GENERATOR, THER NOISEA	13 SIGNAL GENERATOR, THER NOISEA
G032019	1816		H530A	28480 020	53 FREQUENCY METER G	53 FREQUENCY METER G
D080045	1908		IG115	03792 047	19 GENERATOR, SIGNAL FUNCTION	19 GENERATOR, SIGNAL FUNCTION
C032016	1546		IM15018001	15859 089	51 OSCILLOSCOPE, DC-15MHZ	51 OSCILLOSCOPE, DC-15MHZ
G032031	1821		J532A	28480 020	53 FREQUENCY METER G	53 FREQUENCY METER G
K073016	2388		J79902C111902C	64959 978	72 DATA ERROR TEST SET	72 DATA ERROR TEST SET
K090086	4913		J98705U	94156 122	73 DIAL EQUIPMENT TEST SET	73 DIAL EQUIPMENT TEST SET
L150013	2548		K515750L2	28569 978	36 TUBE TESTER	36 TUBE TESTER
A032028	1299		K55040	92656 998	26 INSULATION, TEST SET	26 INSULATION, TEST SET
L150013	2547		K18	072	26 INSULATION, TEST SET 94 SEMICONDUCTOR TEST SET 28 MULTIMETER, DIGITAL HANDHELD	26 INSULATION, TEST SET 94 SEMICONDUCTOR TEST SET 28 MULTIMETER, DIGITAL HANDHELD
G032043	1872		K410A	00929 020	55 FREQUENCY METER I	55 FREQUENCY METER I

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PART II THDE CROSS-REFERENCE LIST  
GENERAL PURPOSE THDE QTS ETE SPECIFICATIONS

INDEX NUMBER	THDE TYPE ID DESIGNATOR	MFG MODEL NR	FSCN	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
G032000 3272		K532A	28480 020	55	FREQUENCY METER I	
G031002 3274		K661159	77327 053	12	SIGNAL GENERATOR, SHF H	08 SIGNAL GENERATOR, SHF D 09 SIGNAL GENERATOR, SHF E
D070006 3273		K7006	28480 050			04 GENERATOR, SIGNAL, PULSE
C011011 4071		LAA3	15566 036	92	OSCILLOGRAPHIC RECORDER B	
C020028 4073		LA265A	35225 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C040099 4088		L3	80009 061	65	SPECTRUM ANALYZER, LOW FREQ	
D040038 1909		L5X4	04423 108	20	SWEEP GENERATOR, HF	22 SWEEP GENERATOR, UHF/VHF
D010142 1910		L5XA1	04423 108	22	SWEEP GENERATOR, UHF/VHF	
D070004 3275		L7006	77327 107	16	GENERATOR, SIGNAL, UHF	
D080083 4120		MEC100C	106	18	GENERATOR, SIGNAL, VHF	
E013036 1779		MF10	998			47 FREQUENCY METER A
C010003 4064		MH906A	40931 036	91	OSCILLOGRAPHIC RECORDER A	
A013029 1990		MIL110314	65092 998			
A011001 4835		ML55C	50866 076			
C060008 1602		MM120	98282 031	57	MODULATION METER	
D050047 1912		MP1	04596 050	04	GENERATOR, SIGNAL, PULSE	29 MULTIMETER, DIGITAL 27 MEGOHMMETER 30 OHMMETER
A013029 1991		MRS3M450ACV	04423 998	41	VOLTMETER, AC TRUE RMS	41 VOLTMETER, AC TRUE RMS 29 MULTIMETER, DIGITAL
A013029 1992		MRS3M750DCV	04423 998	29	MULTIMETER, DIGITAL	
A020036 1993		MS1A	00426 001			
D022003 3394		MT1510	16764 117			23 AMMETER, AC, CLAMP-ON
D020004 3393		MT650	16764 117			32 TACHOMETER ELECTRONIC
A011039 1994		MV288	85711 079	40	VOLTMETER, RF	32 TACHOMETER ELECTRONIC
4139		M095512A	28480 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
A013029 1989		M1	03782 998			41 VOLTMETER, AC TRUE RMS

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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE QTS ETE SPECIFICATIONS

INDEX NUMBER	TMDE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
D070019	3276		M1944	16469 051	03	SIGNAL GENERATOR, HF	17 SIGNAL GENERATOR, VHF A
D070018	3277		M1954	16469 106	18	GENERATOR, SIGNAL, VHF	29 MULTIMETER, DIGITAL
D070017	3278		M1964	16469 106	18	GENERATOR, SIGNAL, VHF	
D070016	3279		M1974	16469 107	15	SIGNAL GENERATOR, UHF A	
R021014	1300		M1	56289 011	25	BRIDGE, UNIVERSAL	
A012025	4047		M45	65092 078	29	MULTIMETER, DIGITAL	
F040001	1742		MM1727	80869 043	43	FIELD STRENGTH METER A	
F050007	1743		MM267	80869 043	43	FIELD STRENGTH METER A	
F040002	1744		MM1757	80869 043	44	FIELD STRENGTH METER B	
F040003	4888		MM7	80869 043	43	FIELD STRENGTH METER A	
G032045	1781		M414A	00929 020	53	FREQUENCY METER G	
C032035	1551		0	80009 089	51	OSCILLOSCOPE, DC-15MHZ	13 SIGNAL GENERATOR, THER MDISEA 14 SIGNAL GENERATOR, THER MDISEB
E011060	4110		PANF175	12678 055			41 VOLT METER, AC TRUE RMS 29 MULTIMETER, DIGITAL
A011004	4045		PA14AC	79500 076			41 VOLT METER, AC TRUE RMS 29 MULTIMETER, DIGITAL
A020018	1998		PA140C	79500 998			41 VOLT METER, AC TRUE RMS 29 MULTIMETER, DIGITAL
	1999		PA151	86416 998	23	AMMETER, AC, CLAMP-ON	
A020018	1997		PA5	89315 001	23	AMMETER, AC, CLAMP-ON	
G032040	1785		PFM604R	03927 020	47	FREQUENCY METER A	
D050017	1914		PG32	24141 050	04	GENERATOR, SIGNAL, PULSE	
K100032	2483		PG404	96238 067	34	TELETYPE TEST SET GENERATOR	
D050055	4107		PG501	80009 050			19 GENERATOR, SIGNAL FUNCTION 04 GENERATOR, SIGNAL, PULSE
D050059	4109		PG507	80009 050			19 GENERATOR, SIGNAL FUNCTION 04 GENERATOR, SIGNAL, PULSE
A041039	1101		PM32	65054 032	29	MULTIMETER, DIGITAL	28 MULTIMETER, DIGITAL HANDHELD

PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME OTS EYE SPECIFICATIONS

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INDEX NUMBER	TME ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
	2000		PM1600	08987 998	25	BRIDGE, UNIVERSAL	
C040023	1603		PSA231	23369 061	68	SPECTRUM ANALYZER, RF	
D050056	4108		PSX1	04423 106			19 GENERATOR, SIGNAL FUNCTION 17 SIGNAL GENERATOR, VHF A 04 GENERATOR, SIGNAL, PULSE
E013014	3686		PT8L	89954 998			41 VOLTMEETER, AC TRUE RMS 29 MULTIMETER, DIGITAL
A012028	2026		PH151	79500 998	29	MULTIMETER, DIGITAL	29 MULTIMETER, DIGITAL
A011048	2024		PH4	88416 998			
A012028	2025		PH5	79500 077	29	MULTIMETER, DIGITAL	
A012028	2027		PH936496	79500 998	29	MULTIMETER, DIGITAL	38 VOLTMEETER, DIFFERENTIAL
A020034	1995		P1	29834 001	23	AMMETER, AC, CLAMP-ON	
D020014	1913		P147A	28480 055	13	SIGNAL GENERATOR, THER NOISEA	
G032006	3282		P532A	28480 020	55	FREQUENCY METER I	
D070010	3283		P7006	77327 107	15	SIGNAL GENERATOR, UHF A	
A012018	1996		P91008	98438 077	29	MULTIMETER, DIGITAL	
A033028	4841		QC1001PL	82389 009	88	CABLE TEST SET (TDR)	
	3287		ACD20006	23405 998			04 GENERATOR, SIGNAL, PULSE
C032035	1552		Q0252120	06743 084	98	X-Y RECORDER	
C011001	1553		Q0252220	96795 036	92	OSCILLOGRAPHIC RECORDER R	
D080079	4119		RC501	80009 047			19 GENERATOR, SIGNAL FUNCTION
C020033	1554		RM15	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
C031021	3289		RM33	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
C031019	1555		RM564	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
A011046	2028		RM139X	86270 025	29	MULTIMETER, DIGITAL	
A041024	1303		RS3	15566 032			28 MULTIMETER, DIGITAL HANDHELD 23 AMMETER, AC, CLAMP-ON
A041052	1304		RS14	15566 032			28 MULTIMETER, DIGITAL HANDHELD

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PART II TMOE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMOE DTS ETE SPECIFICATIONS

INDEX NUMBER	TMOE TYPE ID DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A042018	1305	R5100	15566	001		23 AMMETER, AC, CLAMP-ON
D080044	4116	R1200A	01537	106		20 MULTIMETER, DIGITAL HANDHELD 23 AMMETER, AC, CLAMP-ON
C040071	3284	R491	80009	062	68 SPECTRUM ANALYZER, RF	19 GENERATOR, SIGNAL FUNCTION 18 GENERATOR, SIGNAL, VHF
C030054	4077	R5030	80009	080	55 OSCILLOSCOPE, DUAL TRACE, DC-400MHZ	
C031026	4859	R5113	80009	089	51 OSCILLOSCOPE, DC-15MHZ	
C030053	4076	R4403040	80009	089	51 OSCILLOSCOPE, DC-15MHZ	
C011020	3286	R5618	80009	089	51 OSCILLOSCOPE, DC-15MHZ	
C030049	4075	R7113	80009	091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C031022	4081	R7603	80009	091	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C031025	4858	R760101	80009	090	52 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C020068	4854	R7704	80009	090	54 OSCILLOSCOPE, DUAL TRACE, DC200MHZ	
C040025	1605	S470A	03782	061	68 SPECTRUM ANALYZER, RF	20 MULTIMETER, DIGITAL HANDHELD 23 AMMETER, AC, CLAMP-ON
C040031	1606	SAB4WA	82199	062	68 SPECTRUM ANALYZER, RF	
C040036	1607	SR7	03782	062	68 SPECTRUM ANALYZER, RF	
C030856	4079	SC502	80009	089	51 OSCILLOSCOPE, DC-15MHZ	
K100032	2491	SER508B	82386	998		
D080033	4115	SC502	80009	047	19 GENERATOR, SIGNAL FUNCTION	19 GENERATOR, SIGNAL FUNCTION 18 GENERATOR, SIGNAL, VHF
D010152	4099	SC503	80009	108		
D010124	4096	SC504	80009	106		17 SIGNAL GENERATOR, VHF A 15 SIGNAL GENERATOR, UHF A
D010159	4101	SC800	29644	053	12 SIGNAL GENERATOR, SHF H	
D080077	4118	SC800A	29644	049		21 SWEEP GENERATOR, SHF 22 SWEEP GENERATOR, UHF/VHF
D060028	1916	SHI	04423	109	22 SWEEP GENERATOR, UHF/VHF	



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PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME DTS EYE SPECIFICATIONS

INDEX NUMBER	TME ID	TYPE OF SIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
P070071	3100		S10558209	64959 998		29 MULTIMETER, DIGITAL 69 STANDING WAVE RATIO (SWR) METER
A042010	1706		S10558220	92674 998		69 STANDING WAVE RATIO (SWR) METER 23 AMMETER, AC, CLAMP-ON
C040013	1608		SPA10	03782 061		65 SPECTRUM ANALYZER, LOW FREQ 68 SPECTRUM ANALYZER, RF
C040032	1609		SPA325A	03782 061	68 SPECTRUM ANALYZER, RF	
D080093	4883		SPG2	80009 068		79 TELEVISION GENERATOR A
C030030	1556		SPR100	01113 080	55 OSCILLOSCOPE, DUAL TRACE, DC-400MHZ	
8022021	3292		SP2280	11837 022	25 BRIDGE, UNIVERSAL	
	3273		SP2979	11837 998		
D060028	1917		SS117	33347 998		25 BRIDGE, UNIVERSAL
C034018	4864		S1	80009 085	56 OSCILLOSCOPE, DC-500MHZ	79 TELEVISION GENERATOR A
A011059	2029		S49M	28569 076	41 VOLTMETER, AC TRUE RMS	
D070008	3290		S7006	77327 053	11 SIGNAL GENERATOR, SHF G	
C030030	1557		T	80009 089	51 OSCILLOSCOPE, DC-15MHZ	
E020002	4132		TCR	82199 043	46 FIELD STRENGTH METER D	
D020001	3403		T052	55026 117		32 TACHOMETER ELECTRONIC
D020001	3404		T0112	82386 998	32 TACHOMETER ELECTRONIC	
L130014	4426		TFCS1091	94117 117		32 TACHOMETER ELECTRONIC 95 STROBOSCOPE
K090083	1791		TF10261	09335 998	50 FREQUENCY METER D	
K090083	1792		TF10262	09335 998	51 FREQUENCY METER E	
K090083	1793		TF10263	09335 998	52 FREQUENCY METER F	
K090083	1794		TF10264	09335 998	52 FREQUENCY METER F	
D010110	1612		TF1066A	09553 106	18 GENERATOR, SIGNAL, VHF	
D010144	1919		TF1066B	09553 106	18 GENERATOR, SIGNAL, VHF	
8023005	1558		TF1245	09553 042		93 Q-METER

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PART II TMOE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMOE QTS ETE SPECIFICATIONS

INDEX NUMBER	TMOE ID	TMOE TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
0010137	1920		TF1247	09553 106	18	GENERATOR, SIGNAL, VHF	
C060001	1613		TF2300A	09553 031			57 MODULATION METER
C060004	1614		TF23001	09553 031			57 MODULATION METER
C060006	4092		TF2304	09553 031	57	MODULATION METER	
C060007	1610		TF7910	09553 031			57 MODULATION METER
C060005	1611		TF934	09553 031	57	MODULATION METER	
0080072	1795		TC50101	80009 047			04 GENERATOR, SIGNAL, PULSE
E013013	1796		TLCG100K	91161 010			42 CALORIMETER
0020011	1923		TH7816	09553 998	59	NOISE GENERATOR, TWELVE CHANNELS	
	1307		T05	56289 998			25 BRIDGE, UNIVERSAL
P080026	3140		TF700542	06840 032	29	MULTIMETER, DIGITAL	
C040027	4005		TS4W	82199 062			66 SPECTRUM ANALYZER, BASEBAND 68 SPECTRUM ANALYZER, RF
D080049	4879		TS61	80009 068	80	TELEVISION GENERATOR C	
D080091	4881		TS63	80009 068			79 TELEVISION GENERATOR A
K090074	2363		TT111038	50137 071	81	TRANSMISSION TEST SET	
K090063	2364		TT11110A	50137 071			73 DIAL EQUIPMENT TEST SET
K090062	2365		TT111140	50137 071	81	TRANSMISSION TEST SET	
K090073	2366		TT111200	50137 037	78	PHASE JITTER METER	
E013014	3463		TT520	06819 998	28	MULTIMETER, DIGITAL HANDHELD	
K080015	2362		TT548NH	06819 071			91 TRANSMISSION TEST SET 73 DIAL EQUIPMENT TEST SET
D020013	1924		TT556	06819 055	14	SIGNAL GENERATOR, THER NOISE	
L150012	2503		TT125	04071 072			36 TUBE TESTER
A043051	1308		TVDM3	25778 032			28 MULTIMETER, DIGITAL HANDHELD
K070003	2429		TV546	94990 032	23	AMMETER, AC, CLAMP-ON	28 MULTIMETER, DIGITAL HANDHELD
K100032	2496		T4	88273 998			28 MULTIMETER, DIGITAL HANDHELD

PART II TME CROSS-REFERENCE LIST GENERAL PURPOSE TME DTS EYE SPECIFICATIONS									06/25/80
INDEX NUMBER	TME ID	TYPE DESIGNATOR	MFG MODEL	MR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME	
C020010	4072		T912		80009 089	51	OSCILLOSCOPE, DC-15MHZ	01 TRANSMISSION TEST SET	
C020067	4853		T922		80009 089	51	OSCILLOSCOPE, DC-15MHZ		
A011059	2031		UP		54085 998			23 AMMETER, AC, CLAMP-ON	
A020013	4048		UPP		32590 003	28	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL	
A042005	1309		USPMDD		03702 032	29	MULTIMETER, DIGITAL		
C031003	3317		U661159		77327 053	12	SIGNAL GENERATOR, SHF M	05 SIGNAL GENERATOR, SHF A 06 SIGNAL GENERATOR, SHF B 07 SIGNAL GENERATOR, SHF C	
0070007	3316		U7006		77327 053	12	SIGNAL GENERATOR, SHF M	08 SIGNAL GENERATOR, SHF D 09 SIGNAL GENERATOR, SHF E	
A042015	3693		VA35		88416 998			41 VOLTMETER, AC TRUE RMS 28 MULTIMETER, DIGITAL HANDHELD	
C050007	1616		V2H3		04598 014			74 DISTORTION ANALYZER	
A011022	2012		V100M		12365 076	41	VOLTMETER, AC TRUE RMS		
E013022	4129		V4030148		99313 010	42	CALORIMETER		
C032011	1559		W		80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ		
D050046	1475		WA44C		49671 998	01	AUDIO OSCILLATOR		
C032014	1797		WCF12174M		16786 020	52	FREQUENCY METER F		
C032005	3319		WDA3712		16786 020	53	FREQUENCY METER G		
C020018	1561		W991C		49671 089	51	OSCILLOSCOPE, DC-15MHZ		
D080041	1476		W4515A		02734 068	80	TELEVISION GENERATOR C		
A043036	1310		WV98C		49671 032			28 MULTIMETER, DIGITAL HANDHELD	
D022005	1560		W3		038			60 PHASE METER	
A043018	1311		X1		03626 032	29	MULTIMETER, DIGITAL		
A043023	1312		X2		03626 032	29	MULTIMETER, DIGITAL		
A041013	1313		X3A		03626 032	29	MULTIMETER, DIGITAL		
D020005	1477		X147A		28480 055	13	SIGNAL GENERATOR, THER NOISEA		

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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE DTS EYE SPECIFICATIONS

INDEX NUMBER	TMDE TYPE ID DESIGNATOR	MFG MODEL NR	FSCM	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C032026	1798	X410A	00929 020	53	FREQUENCY METER G	
	4463	X446A	28480 998	63	POWER METER, SHF	
C032025	1799	X532A	28480 020	53	FREQUENCY METER G	
C032058	1750	X551F	28480 020	53	FREQUENCY METER G	
E013056	1154	X670	77327 041	63	POWER METER, SHF	
L150019	2456	YTM3	13608 998			36 TUBE TESTER
C032024	1751	Y410A	00929 020	54	FREQUENCY METER H	
8021005	1314	7R2A	80740 011			25 BRIDGE, UNIVERSAL
8022009	1562	01R2	19482 008	25	BRIDGE, UNIVERSAL	
A011022	2033	01	88416 998	27	MEGOhmMETER	
M021051	4472	075502900	80009 111			97 VIBRATION TEST SET 91 OSCILLOGRAPHIC RECORDER A
A011022	2034	050AMPS	33333 998	23	AMMETER, AC, CLAMP-ON	
A011022	2036	0750AMPS	33333 998			29 MULTIMETER, DIGITAL
C032015	1563	1A5	80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C050036	2186	1C	62973 998			97 VIBRATION TEST SET
D080040	1878	1G115	03782 050			13 SIGNAL GENERATOR, THER NOISE A 14 SIGNAL GENERATOR, THER NOISE B
C040020	1617	1L10	80009 061	68	SPECTRUM ANALYZER, RF	
C040021	1618	1L20	80009 062	68	SPECTRUM ANALYZER, RF	
C035001	1619	1S2	80009 009	88	CABLE TEST SET (TDR)	
A011066	3338	10	09435 080	40	VOLTMETER, RF	
I090012	2190	10VAN	01072 111	97	VIBRATION TEST SET	
	1882	100A	80138 998			22 SINEP GENERATOR, UNF/VHF 20 SINEP GENERATOR, HF 19 GENERATOR, SIGNAL FUNCTION
I090005	2197	100VPD	01072 111	97	VIBRATION TEST SET	
C050067	2218	10005C	34532 998	97	VIBRATION TEST SET	

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PART 11 TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME OTS ETE SPECIFICATIONS

INDEX NUMBER	TME ID	TYPE DESIGNATOR	MFG MODFL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C050072	2219		1002	90101 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
D010016	1652		1003	24655 998	03	SIGNAL GENERATOR, HF	
D010120	1597		10046503	18876 998	03	SIGNAL GENERATOR, HF	18 GENERATOR, SIGNAL, VHF 17 SIGNAL GENERATOR, VHF A
A041051	1378		1007	15566 032			20 MULTIMETER, DIGITAL HANDHELD
D050016	1322		101	89497 032	29	MULTIMETER, DIGITAL	
D050016	1883		101	15933 050	04	GENERATOR, SIGNAL, PULSE	
1090005	2198		1018	16152 998	76	IMPULSE NOISE COUNTER	02 TRANSMISSION TEST SET
A070020	2055		10111154	18876 998	41	VOLTMETER, AC TRUE RMS	
D050046	1874		1013	82199 050	04	GENERATOR, SIGNAL, PULSE	
A033018	1323		10158F	98202 110	28	MULTIMETER, DIGITAL HANDHELD	
A042017	1444		10167653	80053 998	40	VOLTMETER, RF	
A042017	1445		10178145	04164 998	29	MULTIMETER, DIGITAL	
2095			10182039	04164 998	03	SIGNAL GENERATOR, HF	
2096			10182651	04164 998	13	SIGNAL GENERATOR, THER NOISEA	
2097			10182653	04164 998	19	GENERATOR, SIGNAL FUNCTION	
2098			10182657	04164 998	04	GENERATOR, SIGNAL, PULSE	
C010018	1440		10188462	18876 998	29	MULTIMETER, DIGITAL	
D010078	1630		102A	04901 104	18	GENERATOR, SIGNAL, VHF	
K090059	2406		10215019	18876 998	71	AUDIO SYSTEM TEST SET	
D010049	1653		1022C	R0009 006	01	AUDIO OSCILLATOR	
C050010	1708		101781926A	06811 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
C050057	2221		1017M	06811 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
C050059	2220		1017M2	06811 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
A031013	2051		10175	35529 008			25 BRIDGE, UNIVERSAL
C030029	4074		1045A	28480 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	

PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME DTS ETE SPECIFICATIONS

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INDEX NUMBER	TME ID	TYPE OF SIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A031006	1926		1050	28009 008			25 BRIDGE, UNIVERSAL 30 OHMMETER 26 INSULATION, TEST SET 77 LOGIC ANALYZER 77 LOGIC ANALYZER 77 LOGIC ANALYZER
L060004	2701		1052SA	28480 027			
L060001	2702		10520A	28480 027			
L060003	2703		10529A	28480 027			
D040014	3340		1061YPE2	80009 054	19	GENERATOR, SIGNAL FUNCTION	
D010143	1825		106686	09553 106	18	GENERATOR, SIGNAL, VHF	
D040008	1884		107	80009 054	19	GENERATOR, SIGNAL FUNCTION	
A031029	1379		1080	28009 008			25 BRIDGE, UNIVERSAL 27 MEGOHMMETER
	1485		109	80009 998			04 GENERATOR, SIGNAL, PULSE
L030007	2360		118	14100 122	73	DIAL EQUIPMENT TEST SET	
D050034	4105		1108	06811 050	04	GENERATOR, SIGNAL, PULSE	
A020020	2050		11041101	10876 998			30 OHMMETER
D050026	2562		1105A	28480 050			04 GENERATOR, SIGNAL, PULSE
D080032	1826		1107	82199 053			06 SIGNAL GENERATOR, SHF B 07 SIGNAL GENERATOR, SHF C
A012034	2040		111	55026 077	29	MULTIMETER, DIGITAL	
D060029	1886		112D	04423 109			22 SWEEP GENERATOR, UNF/VHF 20 SWEEP GENERATOR, HF 19 GENERATOR, SIGNAL FUNCTION
E013021	4128		1136	07387 004			87 AUDIO INTENSITY METER
D050043	4106		114A	06811 050	04	GENERATOR, SIGNAL, PULSE	
G032021	1709		1142A	24655 020	48	FREQUENCY METER B	
D010014	3553		1144A	24655 998			48 FREQUENCY METER B 49 -FREQUENCY METER C
G050019	1710		1153	24655 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
G031007	1711		1156A	24655 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	

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PART II TMD CROSS-REFERENCE LIST  
GENERAL PURPOSE TMD ETE SPECIFICATIONS

INDEX NUMBER	TMD TYPE ID	DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
0080046	1008		111E	15059 047	19 GENERATOR, SIGNAL FUNCTION	
0080021	1007		116VCC	23338 047	19 GENERATOR, SIGNAL FUNCTION	
0050003	1712		11910	24655 010	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
0090006	2369		120	14140 071	01 TRANSMISSION TEST SET	
0090065	2370		170	70957 122	73 DIAL EQUIPMENT TEST SET	
0010014	3554		1711	06424 990	52 FREQUENCY METER F	
0020034	1517		1700	20480 009	51 OSCILLOSCOPE, DC-15MHZ	
0060002	2223		1701A	50137 037	70 PHASE JITTER METER	
0080073	1713		12050F	82199 107	16 GENERATOR, SIGNAL, UHF	
0080065	1027		1205F	82199 107	16 GENERATOR, SIGNAL, UHF	
	1654		17000	24655 990	10 GENERATOR, SIGNAL, VHF	
0010125	1020		17100	24655 006	01 AUDIO OSCILLATOR	25 BRIDGE, UNIVERSAL
0010002	1714		1212A	24655 000		
0010129	1029		12150	24655 106	10 GENERATOR, SIGNAL, VHF	
0050041	1030		1217C	24655 050	04 GENERATOR, SIGNAL, PULSE	
0020071	4057		1220A	28400 009	51 OSCILLOSCOPE, DC-15MHZ	
0060003	2711		122001	89944 990		36 TUBE TESTER
0150025	2400		123A	20569 072	36 TUBE TESTER	
0011061	2041		1240	80164 076	41 VOLTMETER, AC TRUE RMS	
0000095	4005		1240	08090 000	80 TELEVISION GENERATOR C	
0031023	1715		1255A	06811 019	50 FREQUENCY COUNTER (10HZ TO 100MHZ)	
0011042	2041		1260	94660 110	70 VOLTMETER, FREQUENCY SELECTIVE	70 VOLTMETER, FREQUENCY SELECTIVE 86 VOICE BAND ANALYZER
0011055	2044		127C	94660 110		
0031013	2052		12000	91547 990		20 MULTIMETER, DIGITAL HANDHELD
0011020	2045		1200	94660 110		70 VOLTMETER, FREQUENCY SELECTIVE

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PART II TMOE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMOE DTS ETE SPECIFICATIONS

INDEX NUMBER	TMOE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A042017	1442		1294012	79500 994	26	INSULATION, TEST SET	
K090001	2371		130	14100 122			86 VOICE BAND ANALYZER
D010127	1812		1307A	24655 006	01	AUDIO OSCILLATOR	73 DIAL EQUIPMENT TEST SET
D010083	1656		1310B	24655 006			01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF
D010095	2561		1311A	24655 006	01	AUDIO OSCILLATOR	
D050045	1809		132A	13480 050	04	GENERATOR, SIGNAL, PULSE	
D010074	3341		134A	21461 047			01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF
M014052	4451		136GT104115	26512 117	32	TACHOMETER ELECTRONIC	
A013031	1927		1346	24655 076			
M022013	5148		135M11	90866 117			41 VOLTMETER, AC TRUE RMS 29 MULTIMETER, DIGITAL
M022016	3448		135M9	99866 065			32 TACHOMETER ELECTRONIC
A032026	1124		136X	77068 025			95 STROBOSCOPE
D010161	4404		1363	24655 106	17	SIGNAL GENERATOR, VHF A	26 INSULATION, TEST SET
D050033	1890		1378	13480 050			04 GENERATOR, SIGNAL, PULSE
D080043	1491		140	80009 068	80	TELEVISION GENERATOR C	
C010017	1544		146AC71	28480 085	56	OSCILLOSCOPE, DC-500MHZ	
A012030	1928		1400	31946 077	29	MULTIMETER, DIGITAL	
A020035	1929		1400	31946 003	29	MULTIMETER, DIGITAL	
C020001	1542		1401AC14	28480 089	51	OSCILLOSCOPE, DC-15MHZ	
	4868		1401A123P7	80009 061	68	SPECTRUM ANALYZER, RF	
D020017	4103		1402	27591 055			13 SIGNAL GENERATOR, THER NOISE 14 SIGNAL GENERATOR, THER NOISE
C032019	1449		1402A	28480 089	51	OSCILLOSCOPE, DC-15MHZ	
C032036	2564		1402AC07	28480 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	



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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE OTS EYE SPECIFICATIONS

INDEX NUMBER	TMDE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
0000094	4004		1405	00009 060			79 TELEVISION GENERATOR A 80 TELEVISION GENERATOR C 60 SPECTRUM ANALYZER, RF
0000035	1519		141A	20400 091	S2	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030023	1092		141A	80009 091	S2	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030050	1520		141SC07	20400 094	S3	OSCILLOSCOPE, DUAL TRACE, STORAGE	
C040057	1657		1410	65092 047	19	GENERATOR, SIGNAL FUNCTION	
0000026	5149		1410C	00009 060			79 TELEVISION GENERATOR A 80 TELEVISION GENERATOR C
C034015	2565		1411AC03	20400 085	S6	OSCILLOSCOPE, DC-500MHZ	
C035005	1650		1415A	20400 009	00	CABLE TEST SET (TDR)	
C030042	1470		1416A	20400 089	S1	OSCILLOSCOPE, DC-15MHZ	
0101179	4007		142	23330 047	19	GENERATOR, SIGNAL FUNCTION	
C034015	2566		1421AC06	20400 089	S1	OSCILLOSCOPE, DC-15MHZ	
C033001	1471		1423A	20400 091	S2	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C034008	1659		1424A	20400 085	S6	OSCILLOSCOPE, DC-500MHZ	
C034009	2567		1425AC03	20400 089	S1	OSCILLOSCOPE, DC-15MHZ	
C034010	2568		1430AC04	20400 085	S6	OSCILLOSCOPE, DC-500MHZ	
0000005	4121		1470OPTION1	00009 060	00	TELEVISION GENERATOR C	79 TELEVISION GENERATOR A
A042012	1700		1477	29310 032			24 MULTIMETER, DIGITAL
1090004	2147		1500	62973 111	97	VIBRATION TEST SET	
A033009	1741		1501323	00009 009	00	CABLE TEST SET (TDR)	
A033020	1302		1502	00009 009	00	CABLE TEST SET (TDR)	
A033023	4790		1503	00009 009	00	CABLE TEST SET (TDR)	
0010104	4093		15122	16469 107			17- SIGNAL GENERATOR, VHF A 15- SIGNAL GENERATOR, UHF A 16- GENERATOR, SIGNAL, UHF
6020003	1717		1531A9	24655 065	95	STROBOSCOPE	

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PART II TMD CROSS-REFERENCE LIST  
GENERAL PURPOSE TMD OTS ETE SPECIFICATIONS

INDEX NUMBER	TMD TYPE ID DESIGNATOR	MFG MODEL NR	FSCN	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
G020007	1710	1530A	24655	065	95 STROBOSCOPE	
G020005	4136	1543	24655	065	95 STROBOSCOPE	
G020015	4137	15439700	24655	065	95 STROBOSCOPE	
A020033	2046	155	65092	001	23 AMMETER, AC, CLAMP-ON	
F030004	2569	1551C	24655	004		87 AUDIO INTENSITY METER
I090008	2774	15539701	24655	111		97 VIBRATION TEST SET
C040055	1461	1559A	24655	059	65 SPECTRUM ANALYZER, LOW FREQ	
A033015	1303	1580A	28400	009		88 CABLE TEST SET (TDRI)
A041041	1325	140	55026	032	28 MULTIMETER, DIGITAL HANDHELD	
L060002	2522	1601L	28400	027	77 LOGIC ANALYZER	
L040044	4819	1604A	24655	998		25 BRIDGE, UNIVERSAL
	1344	1607A	28400	027	77 LOGIC ANALYZER	
B021020	1385	1610R2	24655	998	25 BRIDGE, UNIVERSAL	
B021019	2570	1611A	24655	008	25 BRIDGE, UNIVERSAL	
A031005	1930	1615AM	24655	011	25 BRIDGE, UNIVERSAL	
B021017	2571	1620	73306	025	27 MEGOHMMETER	27 MEGOHMMETER
A032022	1306	1620A	24655	011	25 BRIDGE, UNIVERSAL	26 INSULATION, TEST SET
B021018	2572	1632	24655	008	25 BRIDGE, UNIVERSAL	
B080024	4810	164	23330	081		19 GENERATOR, SIGNAL FUNCTION
E013015	1767	1648	94668	082	62 POWER METER, RF IN-LINE	61 WATTMETER, RF
A031026	1397	1644A	24655	008		26 INSULATION, TEST SET
C050006	1462	1645A	28400	013	72 DATA ERROR TEST SET	27 MEGOHMMETER
B022007	1475	1650M	24655	008	25 BRIDGE, UNIVERSAL	
	1931	1652A	24655	098	25 BRIDGE, UNIVERSAL	

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PART II TMOE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMOE DTS FTE SPECIFICATIONS

INDEX NUMBER	TMOE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A043038	1326		167	80164 032	29	MULTIMETER, DIGITAL	28 MULTIMETER, DIGITAL HANDHELD
C020047	1476		1707A	20480 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
D080048	1836		1709A	02199 053	08	SIGNAL GENERATOR, SHF D	
D080047	1837		1710A	02199 053	09	SIGNAL GENERATOR, SHF E	
F020003	4815		1711700104	14028 111			97 VIBRATION TEST SET
C020057	1477		1722A	20480 085	56	OSCILLOSCOPE, DC-500MHZ	
L140002	2444		17233	30120 117	32	TACHOMETER ELECTRONIC	
C020065	4797		1740A101	20480 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
A032004	1327		178C	83490 025			26 INSULATION, TEST SET
C031010	4799		180A	20480 089	51	OSCILLOSCOPE, DC-15MHZ	
C030057	4798		180D	20480 089	51	OSCILLOSCOPE, DC-15MHZ	
	1933		1800B	24655 990			41 VOLTMETER, AC TRUE RMS 29 MULTIMETER, DIGITAL
C032048	1478		1801A	20480 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C032053	1480		1804A	20480 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C032001	4802		1805A	20480 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
A043054	1674		1806A	24655 032			28 MULTIMETER, DIGITAL HANDHELD 29 MULTIMETER, DIGITAL
C032005	4803		1809A	20480 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C034012	1663		1810A	20480 085	56	OSCILLOSCOPE, DC-500MHZ	
C035007	1664		1815A	20480 009	88	CABLE TEST SET (TDR)	
C034013	1665		1816A	20480 085	56	OSCILLOSCOPE, DC-500MHZ	
C034014	1666		1817A	20480 085	56	OSCILLOSCOPE, DC-500MHZ	
M022013	2714		1920016	89944 072			36 TUBE TESTER
L150007	2465		1920017	89944 072			36 TUBE TESTER
L150006	2466		1920018	89944 072			36 TUBE TESTER
C033017	1483		1921A	20480 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	

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PART II TND CROSS-REFERENCE LIST  
GENERAL PURPOSE TND ETL SPECIFICATIONS

INDEX NUMBER	TND TYPE ID	OF SIGNATOR	MFG MODEL NR	FSCM CODE	F/- CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C031022	1404		1825A	28480 090	S4	OSCILLOSCOPE, DUAL TRACE, DC-200MHZ	
C031023	4901		184A	28480 094	S3	OSCILLOSCOPE, DUAL TRACE, STORAGE	
D040010	1896		185A	30669 054			19 GENERATOR, SIGNAL FUNCTION
C020007	1524		185BR	28480 089	S1	OSCILLOSCOPE, DC-15MHZ	
D050032	2581		18500R	99899 107	16	GENERATOR, SIGNAL, UHF	
A031011	1934		1862A	24655 025	26	INSULATION, TEST SET	
A031024	1390		1862B	24655 025	26	INSULATION, TEST SET	
A031026	1389		1862B51	24655 998	26	INSULATION, TEST SET	
A032012	1391		1862C	24655 025	26	INSULATION, TEST SET	
M015006	5152		1864A	28480 070			96 TEMPERATURE INDICATOR
A032013	1393		18649700	24655 998	26	INSULATION, TEST SET	
G020007	1722		1890	49673 998	89	GAUSS METER	
B023006	1575		190A	28480 042			93 O-METER
D010080	1632		190A	80009 051			03 SIGNAL GENERATOR, HF 01 AUDIO OSCILLATOR
D010141	1897		190B	80009 051			03 SIGNAL GENERATOR, HF 01 AUDIO OSCILLATOR
D050004	1938		1920A	28480 050			04 GENERATOR, SIGNAL, PULSE
G050060	2225		1926A	06811 018	S7	UNIVERSAL COUNTER (DC TO 500MHZ)	
F030003	1723		1939714	24655 004			87 AUDIO INTENSITY METER
A043043	1320		195A	49671 032			29 MULTIMETER, DIGITAL
F068003	1724		1965	49673 021			89 GAUSS METER
A041004	1329		200	80164 032	20	MULTIMETER, DIGITAL HANDHELD	
1130001	4795		200	96795 036	91	OSCILLOGRAPHIC RECORDER A	
D010116	1633		200A	28480 004	01	AUDIO OSCILLATOR	
A013013	1975		200R	80164 998			41 VOLT METER, AC TRUE RMS 29 MULTIMETER, DIGITAL

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PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME DTS ETE SPECIFICATIONS

INDEX NUMBER	TME ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
D010096	3343		200CN	28480 006	01	AUDIO OSCILLATOR	
D010139	1898		200J	28480 006	01	AUDIO OSCILLATOR	
D060014	1839		20001	04423 108			22 SHEEP GENERATOR, UHF/VHF 20 SHEEP GENERATOR, HF 19 GENERATOR, SIGNAL FUNCTION
A011036	1935		2005	08098 076	41	VOLTMETER, AC TRUE RMS	
G032023	2099		2006	27593 020			48 FREQUENCY METER B 49 FREQUENCY METER C 50 FREQUENCY METER D
A013030	1936		2007	27591 079			40 VOLTMETER, RF 38 VOLTMETER, DIFFERENTIAL
A012030	1330		201	04237 032			28 MULTIMETER, DIGITAL HANDHELD
A041057	2001		201	16152 077			29 MULTIMETER, DIGITAL
D010119	1634		201PC60	28480 006	01	AUDIO OSCILLATOR	
A012021	3704		2019	03626 998	29	MULTIMETER, DIGITAL	
D000036	3145		202A	28480 047			
A012024	1749		2028	28480 051			19 GENERATOR, SIGNAL FUNCTION
G031009	2002		2028	05157 077			03 SIGNAL GENERATOR, HF 01 AUDIO OSCILLATOR
D010048	1635		202E	28480 106	18	GENERATOR, SIGNAL, VHF	
B023006	1926		2021	90101 998	60	PHASE METER	
D010105	1637		209A	28480 006	01	AUDIO OSCILLATOR	
A032008	1315		2111052	07239 025			29 MULTIMETER, DIGITAL
A032030	4788		210400	08448 029			
G020036	1927		211	80009 089	51	OSCILLOSCOPE, DC-15MHZ	26 INSULATION, TEST SET 27 MEGOHMMETER
D010051	1638		211A	28480 106	18	GENERATOR, SIGNAL, VHF	27 MEGOHMMETER 26 INSULATION, TEST SET
B022002	1437		21156	07239 025			27 MEGOHMMETER 26 INSULATION, TEST SET

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PART II TIDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TIDE OTS ETE SPECIFICATIONS

INDEX NUMBER	TIDE TYPE DESIGNATOR	MFG MODEL NR	FSCN	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
B022001	4793	212A-R-C	07342	074	85 VECTOR VOLTMETER	
C020059	4796	213	80009	089	51 OSCILLOSCOPE, DC-15MHZ	
B050044	1850	213B	28480	050	04 GENERATOR, SIGNAL, PULSE	
B050031	3148	214A	28480	050	04 GENERATOR, SIGNAL, PULSE	
B050027	3253	214AC38	28480	050		19 GENERATOR, SIGNAL FUNCTION 04 GENERATOR, SIGNAL, PULSE
L100020	4820	215	28569	042	94 SEMICONDUCTOR TEST SET	
B050042	1851	216A	28480	050		04 GENERATOR, SIGNAL, PULSE
I130003	4874	218	06811	050		04 GENERATOR, SIGNAL, PULSE
B080038	1852	218A	28480	050	04 GENERATOR, SIGNAL, PULSE	
	1224	222	57737	029	27 MEGOHMMETER	
B050053	1853	222A	28480	050	04 GENERATOR, SIGNAL, PULSE	
C020016	1528	224A	18778	089	51 OSCILLOSCOPE, DC-15MHZ	
A041036	1332	230	55026	032	28 MULTIMETER, DIGITAL HANDHELD	
A031040	1333	231R	11837	008		25 BRIDGE, UNIVERSAL
L100003	2508	240	93346	045	94 SEMICONDUCTOR TEST SET	
A013032	4786	2401C	28480	078		29 MULTIMETER, DIGITAL
A012039	1937	2430C	31922	077	29 MULTIMETER, DIGITAL	
B022024	4794	244R5	13637	074	85 VECTOR VOLTMETER	
B022002	1438	24421	03626	998	29 MULTIMETER, DIGITAL	
C020017	1529	247	82573	089	51 OSCILLOSCOPE, DC-15MHZ	
G032023	2101	2470350	49673	998		89 GAUSS METER
K090077	2372	25	04773	122		73 DIAL EQUIPMENT TEST SET
M011068	1530	250	05606	038	60 PHASE METER	
B022003	1334	250A	04901	022		25 BRIDGE, UNIVERSAL
C010016	1486	252100	96795	036	91 OSCILLOGRAPHIC RECORDER A	



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PART II TMOE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMOE DTG ETE SPECIFICATIONS

INDEX NUMBER	TMOE ID	TYPE DESIGNATOR	MFG MODEL	MR	FSCN	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC MR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC MR AND SPEC NAME
A031004	2004		255		04237 035			31 OHMMETER, EARTH TESTER 28 MULTIMETER, DIGITAL HANDHELD
C031020	2102		2590A		28400 125	59	FREQ CNTR(300KHZ-18GHZ RF PULSE)	
B023004	1531		240A		04901 042			93 O-METER
A041003	1336		2605		55026 032			28 MULTIMETER, DIGITAL HANDHELD 41 VOLTMETER, AC TRUE RMS
A043045	1337		261C		14031 032	29	MULTIMETER, DIGITAL	
A041065	4563		2612		55026 032			28 MULTIMETER, DIGITAL HANDHELD 29 MULTIMETER, DIGITAL 41 VOLTMETER, AC TRUE RMS
B023004	1532		265A		33225 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
B010113	1667		2650A		28400 053			16 GENERATOR, SIGNAL, UHF 12 SIGNAL GENERATOR, SHF H 05 SIGNAL GENERATOR, SHF A 06 SIGNAL GENERATOR, SHF B
B022011	1487		2700		09553 008	25	BRIDGE, UNIVERSAL	
B024024	3519		2737		01216 998			28 MULTIMETER, DIGITAL HANDHELD 23 AMMETER, AC, CLAMP-ON
B020005	3520		2755		01216 117	32	TACHOMETER ELECTRONIC	
B020009	3521		2703		01216 117	32	TACHOMETER ELECTRONIC	
B015008	5155		2802A01		28400 070			
A041073	4844		283		08098 032	29	MULTIMETER, DIGITAL	
B022020	3350		290AMND		11037 008	25	BRIDGE, UNIVERSAL	
B080034	1840		2901		00009 047	04	GENERATOR, SIGNAL, PULSE	
A012024	1770		291A		06424 998	40	FREQUENCY METER B	
A011034	2006		2918712A17		79500 076	41	VOLTMETER, AC TRUE RMS	
B070026	1855		297A		28400 075	06	VOICE BAND ANALYZER	
C032050	3327		3A3		80009 089	51	OSCILLOSCOPE, DC-15MHZ	
C032052	3326		3A6		80009 089	51	OSCILLOSCOPE, DC-15MHZ	
C032051	3325		3A7		80009 089	51	OSCILLOSCOPE, DC-15MHZ	
						96	TEMPERATURE INDICATOR	

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PART II TMD CROSS-REFERENCE LIST  
GENERAL PURPOSE TMD OTS ETC SPECIFICATIONS

INDEX NUMBER	TMD TYPE ID DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C032049	1564	1474	80009 089	51 OSCILLOSCOPE, DC-15MHZ	
C033020	1729	301	80009 089	51 OSCILLOSCOPE, DC-15MHZ	
C034016	1728	104	80009 089	51 OSCILLOSCOPE, DC-15MHZ	
C034006	1710	351	80009 085	56 OSCILLOSCOPE, DC-500MHZ	
C034005	1421	152	80009 089	51 OSCILLOSCOPE, DC-15MHZ	
C034003	1565	172	80009 089	51 OSCILLOSCOPE, DC-15MHZ	
C035003	1622	317	80009 009	80 CABLE TEST SET (TDRI	
C034017	1731	3177	80009 089	51 OSCILLOSCOPE, DC-15MHZ	
L100001	1051	100	96641 045	94 SEMICONDUCTOR TEST SET	
A011040	2007	100M	50423 076		41 VOLTmeter, AC TRUE RMS
A011054	2009	101A	07342 074		85 VECTOR VOLTmeter
					83 VECTOR IMPEDANCE METER A
					84 VECTOR IMPEDANCE METER B
A011005	4529	102C	05535 076		29 MULTIMETER, DIGITAL
					41 VOLTmeter, AC TRUE RMS
A043034	1340	103	55026 032		20 MULTIMETER, DIGITAL HANDHELD
M011034	4517	103R	56770 110		70 VOLTmeter, FREQUENCY SELECTIVE
					86 VOICE BAND ANALYZER
C020026	1534	1044	30669 089	51 OSCILLOSCOPE, DC-15MHZ	
M071031	2300	105A	94660 110		70 VOLTmeter, FREQUENCY SELECTIVE
					86 VOICE BAND ANALYZER
L150017	2470	111R75	06270 072		36 TUBE TESTER
A041027	1341	110	60741 032		20 MULTIMETER, DIGITAL HANDHELD
C013020	1771	110	65092 032	20 MULTIMETER, DIGITAL HANDHELD	
A011064	1353	110A	50423 076		41 --VOLTmeter, AC TRUE RMS
A011065	1354	110A52	50423 076		41 VOLTmeter, AC TRUE RMS
A011063	1355	110R52	50423 076		41 VOLTmeter, AC TRUE RMS

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PART II TMD CROSS-REFERENCE LIST  
GENERAL PURPOSE TMD OTS EYE SPECIFICATIONS

INDEX NUMBER	TMD ID	TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A041047	1343		310C	60741	032		28 MULTIMETER, DIGITAL HANDHELD 23 AMMETER, AC, CLAMP-ON
A043015	1344		311	55026	032		28 MULTIMETER, DIGITAL HANDHELD
A041034	1345		313	55026	032		26 INSULATION, TEST SET 27 MEGOHMMETER
D010080	1640		313A	28400	056		28 MULTIMETER, DIGITAL HANDHELD 41 VOLTMETER, AC TRUE RMS
B022012	3592		315A	11837	008	25 BRIDGE, UNIVERSAL	64 SIGNAL GENERATOR, TRACKING
A011035	4535		316	50423	076	41 VOLTMETER, AC TRUE RMS	
A011054	2011		316S2	50423	998		41 VOLTMETER, AC TRUE RMS
A012022	1939		3202P	28569	077		29 MULTIMETER, DIGITAL 26 INSULATION, TEST SET
C010004	1536		322A	15859	036	91 OSCILLOGRAPHIC RECORDER A	92 OSCILLOGRAPHIC RECORDER B
A011051	1537		323	80009	089	51 OSCILLOSCOPE, DC-15MHZ	
C020006	2012		323	50423	080	41 VOLTMETER, AC TRUE RMS	
C020061	4579		326	80009	089	51 OSCILLOSCOPE, DC-15MHZ	
F020001	1772		330	21354	111		97 VIBRATION TEST SET
D080059	1843		330B501	28400	998		20 SWEEP GENERATOR, MF 19 GENERATOR, SIGNAL FUNCTION
D070024	1841		3301A	28400	047	19 GENERATOR, SIGNAL FUNCTION	
D080059	1842		3310A	28400	047	19 GENERATOR, SIGNAL FUNCTION	
D080080	4434		3310R	28400	047	19 GENERATOR, SIGNAL FUNCTION	
D040012	4873		3320R07	28400	047		19 GENERATOR, SIGNAL FUNCTION 04 GENERATOR, SIGNAL, PULSE
D080068	4633		3330R	28400	052		19 GENERATOR, SIGNAL FUNCTION 20 SWEEP GENERATOR, MF
C050017	3359		334A	28400	014	74 DISTORTION ANALYZER	
M011022	1456		335A	89536	121		38 VOLTMETER, DIFFERENTIAL
C032010	1773		339	65092	020		47 FREQUENCY METER A

PART II TIME CROSS-REFERENCE LIST  
GENERAL PURPOSE TIME OTS ETE SPECIFICATIONS

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INDEX NUMBER	TIME ID	TYPE DESIGNATOR	NEG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
E013036	1774		3408	28480 033			40 FREQUENCY METER B
A011053	2574		3400AY10	28480 080	41	VOLTMETER, AC TRUE RMS	13 SIGNAL GENERATOR, THER MOISEA 14 SIGNAL GENERATOR, THER MOISEA
A013026	1940		3403C	28480 080			
A013028	2014		341	65092 080			41 VOLTMETER, AC TRUE RMS 41 VOLTMETER, AC TRUE RMS
A012012	1942		3430A	28480 078	29	MULTIMETER, DIGITAL	
A041048	4565		3439A	28480 078	29	MULTIMETER, DIGITAL	
A041068	1292		3439AC28	28480 078	29	MULTIMETER, DIGITAL	
F060003	1725		344A	28480 998	13	SIGNAL GENERATOR, THER MOISEA	
A012031	1943		3443A	28480 077	29	MULTIMETER, DIGITAL	
A041040	1395		3446A	28480 032	29	MULTIMETER, DIGITAL	
A031033	1291		3444AC15	28480 032	29	MULTIMETER, DIGITAL	
A013015	1944		3445A	28480 076	29	MULTIMETER, DIGITAL	
A020028	1978		3445AC06	28480 076	29	MULTIMETER, DIGITAL	
A013016	1945		3446A	28480 076	29	MULTIMETER, DIGITAL	
A043013	1396		3450A	28480 032	29	MULTIMETER, DIGITAL	
	1844		3450D	92110 998			04 GENERATOR, SIGNAL, PULSE
A041022	4843		3455A	28480 078	29	MULTIMETER, DIGITAL	
A013029	1985		3460H23	28480 078			29 MULTIMETER, DIGITAL
A041062	4562		3465A	28480 032	29	MULTIMETER, DIGITAL	
A041072	5157		3465H	28480 078	29	MULTIMETER, DIGITAL	
A041076	4846		3466A115	28480 078	29	MULTIMETER, DIGITAL	
A041001	1398		3469H	28480 032			29 MULTIMETER, DIGITAL
A041001	1399		3470A	28480 998	29	MULTIMETER, DIGITAL	
A041061	4561		34703A	28480 032	29	MULTIMETER, DIGITAL	
A012008	1946		3480A	28480 078	29	MULTIMETER, DIGITAL	

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PART II INDE CROSS-REFERENCE LIST  
GENERAL PURPOSE INDE OTS ETE SPECIFICATIONS

INDEX NUMBER	INDE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A03064	1400		3480C	28480 078	29 MULTIMETER, DIGITAL	
A01207	4539		3482A	28480 078	29 MULTIMETER, DIGITAL	
A03063	4569		3484A	28480 032	29 MULTIMETER, DIGITAL	
A03019	1401		3490ADPT10H06	28480 078	29 MULTIMETER, DIGITAL	
L150019	2449		350334	97312 072		36 TUBE TESTER
F070005	2713		350334	97312 072		36 TUBE TESTER
A013039	2015		355	50423 076		41 VOLTMETER, AC TRUE RMS 29 MULTIMETER, DIGITAL
C040064	1669		3570A	28480 059	65 SPECTRUM ANALYZER, LOW FREQ	
A011027	4531		3581C	28480 075	86 VOICE BAND ANALYZER	
A011023	1967		3591A	28480 110	70 VOLTMETER, FREQUENCY SELECTIVE	
C040046	1671		3592A	28480 059		86 VOICE BAND ANALYZER 65 SPECTRUM ANALYZER, LOW FREQ
A032008	1317		36C	30119 998		65 SPECTRUM ANALYZER, LOW FREQ 86 VOICE BAND ANALYZER 68 SPECTRUM ANALYZER, RF
G020006	1762		36FE	117	32 TACHOMETER ELECTRONIC	
A031010	1347		362	55026 035	30 OHMMETER	
M011022	3448		369A9801	02731 998		26 INSULATION, TEST SET 27 MEGOHMMETER
A020030	4546		370	65092 001		
C040009	0561		3703A	28480 030	56 MICROWAVE LINK ANALYZER	
A031031	4553		372	55026 035	28 MULTIMETER, DIGITAL HANDHELD	
D020029	4610		3722A	28480 055		
A020008	3709		373	55026 001	23 AMMETER, AC, CLAMP-ON	
C040088	3719		3737A	28480 030	56 MICROWAVE LINK ANALYZER	
C040089	4593		3744A	28480 052	20 SWEEP GENERATOR, HF	
						97 VIBRATION TEST SET 23 AMMETER, AC, CLAMP-ON 28 MULTIMETER, DIGITAL HANDHELD
						13 SIGNAL GENERATOR, THERM NOISE 14 SIGNAL GENERATOR, THERM NOISE

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PART II INDE CROSS-REFERENCE LIST  
GENERAL PURPOSE INDE DTS ETE SPECIFICATIONS

INDEX NUMBER	INDE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
K070036	5159		3745A	28480 110	70	VOLTMETER, FREQUENCY SELECTIVE	
G050069	4661		3780A	28480 013	72	DATA ERROR TEST SET	
B021001	4571		383A	55026 008			25 BRIDGE, UNIVERSAL
A043052	1402		3860A	21793 032	29	MULTIMETER, DIGITAL	
K100026	2511		400	15230 067	34	TELETYPE TEST SET GENERATOR	35 TELETYPE TEST SET
A011013	2061		400F	28480 076	41	VOLTMETER, AC TRUE RMS	
A011014	2063		400FL	28480 076	41	VOLTMETER, AC TRUE RMS	
A011058	3161		400HR	28480 076	41	VOLTMETER, AC TRUE RMS	
D060020	1726		404	80053 020			47 FREQUENCY METER A
D060020	1857		404	92110 049	21	SWEEP GENERATOR, SHF	
A072029	4556		404	04237 025	26	INSULATION, TEST SET	
A032005	1403		404S	04237 025	26	INSULATION, TEST SET	
A011014	2064		405BR	28480 998	29	MULTIMETER, DIGITAL	
	1858		406A	98278 998	18	GENERATOR, SIGNAL, VHF	
A072017	1318		41001	30119 025			26 INSULATION, TEST SET 27 MEGOHMMETER
A012035	2037		41137	38474 077	29	MULTIMETER, DIGITAL	28 MULTIMETER, DIGITAL HANDHELD
A072023	2065		412	80164 003			29 MULTIMETER, DIGITAL
A020011	4554		412	04237 025	26	INSULATION, TEST SET	
A043002	3569		414A	28480 077			29 MULTIMETER, DIGITAL
D060044	1859		415	08098 068	79	TELEVISION GENERATOR A	
F013017	0494		415EF07	28480 998	69	STANDING WAVE RATIO (SWR) METER	
B010016	3320		415Y10	28480 063	69	STANDING WAVE RATIO (SWR) METER	
B010002	1349		416A	28480 063	69	STANDING WAVE RATIO (SWR) METER	
A020014	2016		417	80164 003			29 MULTIMETER, DIGITAL
A020015	2017		41729	80164 003	29	MULTIMETER, DIGITAL	

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PART II THDE CROSS-REFERENCE LIST  
GENERAL PURPOSE THDE OTS ETE SPECIFICATIONS

INDEX NUMBER	THDE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A042001	1350		419A	28480 077			29 MULTIMETER, DIGITAL
E013059	4009		428	04901 082			62 POWER METER, RF IN-LINE
E013026	4886		428D	04901 041			63 POWER METER, SHF
D010156	1845		4204A	28480 004	01	AUDIO OSCILLATOR	
C020032	1538		4221258	80909 049	51	OSCILLOSCOPE, DC-15MHZ	
A042008	1351		425A	28480 077			29 MULTIMETER, DIGITAL
A042013	1352		425AR	28480 077			29 MULTIMETER, DIGITAL
A043016	1353		427A	28480 032			28 MULTIMETER, DIGITAL HANDHELD 41 VOLTMMETER, AC TRUE RMS
A031043	1405		4271	31922 008			25 BRIDGE, UNIVERSAL
A020002	2018		428A	28480 001			23 AMMETER, AC, CLAMP-ON
A010001	1948		4285	31922 008			25 BRIDGE, UNIVERSAL
A012036	0559		430	65092 076			41 VOLTMMETER, AC TRUE RMS
A011057	1354		430	65092 032			29 MULTIMETER, DIGITAL
A042019	2021		430	65092 077			29 MULTIMETER, DIGITAL
A012013	4540		430	65092 078	29	MULTIMETER, DIGITAL	
E013035	1778		430R	28480 041	63	POWER METER, SHF	
E013002	4127		431CY10	28480 041	63	POWER METER, SHF	
D010160	4402		4310AK16P	93459 049			21 SWEEP GENERATOR, SHF 22 SWEEP GENERATOR, UHF/VHF
E012015	4125		432AF12	28480 041	63	POWER METER, SHF	
E013044	4638		432A001	28480 041			63 POWER METER, SHF
E013058	1770		432R	28480 041	63	POWER METER, SHF	
A043056	1406		4324	21793 032	29	MULTIMETER, DIGITAL	
A011048	2023		433	65092 076	41	VOLTMMETER, AC TRUE RMS	
A020016	1950		433A	65092 076	41	VOLTMMETER, AC TRUE RMS	
A011049	1951		433A	65092 001	23	AMMETER, AC, CLAMP-ON	

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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE UTS ETE SPECIFICATIONS

INDEX NUMBER	TMDE ID	TYPE DESIGNATOR	MEG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A011050	1952		433R	65092 076	41	VOLTMETER, AC TRUE RMS	
A020017	1953		433R	65092 001	23	AMMETER, AC, CLAMP-ON	
A011045	1954		4331906002	65092 076			41 VOLTMETER, AC TRUE RMS
A020038	4547		4332906005	65092 001	23	AMMETER, AC, CLAMP-ON	
C020001	1539		434	80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
E013019	1731		434A	28480 010	42	CALORIMETER	
8023007	4572		4342A	28480 042			93 O-METER
E013020	1732		435A	28480 041	63	POWER METER, SHF	
	4643		436A	28480 041			63 POWER METER, SHF
D080040	1879		440A	88865 998			01 AUDIO OSCILLATOR
D060044	1860		440AR	88865 998			19 GENERATOR, SIGNAL FUNCTION 01 AUDIO OSCILLATOR
E013045	1733		440C	99899 041	63	POWER METER, SHF	
A043048	1407		4440	29318 032	29	MULTIMETER, DIGITAL	
A011057	1755		445A	28569 998			28 MULTIMETER, DIGITAL HANDHELD 23 AMMETER, AC, CLAMP-ON
E013039	1734		450	11332 041			63 POWER METER, SHF
G050032	4892		451	21793 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
C020008	4576		453A	80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C020004	1491		454A	80009 090	54	OSCILLOSCOPE, DUAL TRACE, DC200MHZ	
K020007	2341		4541630	80009 090	54	OSCILLOSCOPE, DUAL TRACE, DC200MHZ	
G020008	2103		4602	03692 117			32 TACHOMETER ELECTRONIC
C020064	4852		464	80009 094	53	OSCILLOSCOPE, DUAL TRACE, STORAGE	
A041074	4445		4640	55026 032	29	MULTIMETER, DIGITAL	
C020058	1492		465	80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C020012	5162		4650M4005	80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C020069	4855		4650M40105	80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	



PART II INDEX CROSS-REFERENCE LIST  
GENERAL PURPOSE TUBE DTS EYE SPECIFICATIONS

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INDEX NUMBER	TUBE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C020063	4580		4650407	80009 091	S2 OSCILLOSCOPE, DUAL TRACE, DC-100MHZ	
C020062	3108		466	091	S2 OSCILLOSCOPE, DUAL TRACE, DC-100MHZ	
D010123	1642		470A1000	94668 107		
D080022	1861		470A1000	94668 107	16 GENERATOR, SIGNAL, UHF	15 SIGNAL GENERATOR, UHF A 17 SIGNAL GENERATOR, VHF A
	1408		4735	31922 998		
A043001	1409		4800	21793 078	29 MULTIMETER, DIGITAL	25 BRIDGE, UNIVERSAL 26 INSULATION, TEST SET
A013004	1945		481	03626 078	29 MULTIMETER, DIGITAL	
B022017	1490		481SA	28480 073	84 VECTOR IMPEDANCE METER B	
A013003	1956		484A	03626 078	29 MULTIMETER, DIGITAL	
C020027	4578		485	80009 085	S6 OSCILLOSCOPE, DC-500MHZ	
A033027	4840		4904A	28480 009	88 CABLE TEST SET (TOR)	
A033003	4557		4910A	28480 009	88 CABLE TEST SET (TOR)	
A033012	1411		4910B	28480 009		
A033022	4558		4917A	28480 009		
C050004	1480		4940A	28480 014	82 TRANSMISSION TEST SET	80 CABLE TEST SET (TOR) 88 CABLE TEST SET (TOR) 81 TRANSMISSION TEST SET
C050020	4871		4940A003	28480 071	82 TRANSMISSION TEST SET	
K090007	4914		4947A010	28480 071	82 TRANSMISSION TEST SET	
C032056	4863		5A14M	80009 089	S1 OSCILLOSCOPE, DC-15MHZ	
C033015	1567		5A18M	80009 089	S1 OSCILLOSCOPE, DC-15MHZ	
C032033	1566		5A21M	80009 089	S1 OSCILLOSCOPE, DC-15MHZ	
C033010	1568		5A10M	80009 089	S1 OSCILLOSCOPE, DC-15MHZ	
C033025	5165		5A12M	80009 089	S1 OSCILLOSCOPE, DC-15MHZ	
C040102	4866		5L4M	80009 059	S1 OSCILLOSCOPE, DC-15MHZ	
G032028	1735		500R	28480 020		65 SPECTRUM ANALYZER, LOW FREQ 48 FREQUENCY METER B

PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME OTS ETE SPECIFICATIONS

06/25/80

INDEX TME TYPE NUMBER ID DESIGNATOR	MFG MODFL NR	FSCN	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
6032055 3364	500RR	28400 020			48 FREQUENCY METER B
9010014 3548	500C	28400 998			32 TACHOMETER ELECTRONIC
A043055 1413	5000S2351	21793 078	29	MULTIMETER, DIGITAL	
A011056 1957	50001	13643 078	29	MULTIMETER, DIGITAL	
L080006 4711	500001	32626 027	77	LOGIC ANALYZER	
L040008 4718	50044	28400 027			77 LOGIC ANALYZER
L060005 2545	50117	28400 027			77 LOGIC ANALYZER
A042017 1441	501905	97424 032	28	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
C030019 3649	5024	80009 080	55	OSCILLOSCOPE, DUAL TRACE, DC-400MHZ	
G032029 2104	5024	20905 020	44	FIELD STRENGTH METER B	
D080049 1862	5048	10597 047	19	GENERATOR, SIGNAL FUNCTION	
C031001 1446	5103MD12	80009 080	55	OSCILLOSCOPE, DUAL TRACE, DC-400MHZ	
0020002 0848	5105A	80138 055			13 SIGNAL GENERATOR, THER NUISEA
1846	5105A1108	28480 998			01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF 17 SIGNAL GENERATOR, VHF A 18 GENERATOR, SIGNAL, VHF
G032029 2105	5110A	28480 998			43 FIELD STRENGTH METER A
D080039 1847	5110B	28480 051			01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF
0050035 5175	512A	28480 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
G031012 1717	512B	28480 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
A020001 4543	5130	15309 032			28 MULTIMETER, DIGITAL HANDHELD
C020037 1493	514AD	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
C020024 1494	515	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
C020013 1495	515A	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
C020020 1496	516	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
A013025 1958	518	49932 076			28 MULTIMETER, DIGITAL HANDHELD

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PART II TIME CROSS-REFERENCE LIST  
GENERAL PURPOSE TIME OTS EYE SPECIFICATIONS

INDEX NUMBER	TIME ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A013017	4542		5203	33200	070		29 MULTIMETER, DIGITAL
G050071	2211		521A	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050060	2212		521C	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G032042	4652		5210A	20400	020		48 FREQUENCY METER B
G050029	2107		5216A	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050037	2213		5220R	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050021	2108		5221A	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050006	2109		5221B	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050067	2214		5230	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G020049	1497		524AD	80009	009	S1 OSCILLOSCOPE, DC-15MHZ	
G031012	1719		524D	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050054	2133		524SLC27	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050007	2110		5240M	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G031014	1740		525C	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050050	2231		4256A	20400	125	S9 FREQ CMT(300KHZ-10GHZ RF PULSE)	
G050045	2232		5258	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050076	2233		5250A	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G011005	2111		5260A	20400	019	S8 FREQUENCY COUNTER(10HZ TO 10GHZ)	48 FREQUENCY METER B 49 FREQUENCY METER C 50 FREQUENCY METER D 51 FREQUENCY METER E
G032061	4655		527A	19397	020		
G020015	4051		52802	80009	009	S1 OSCILLOSCOPE, DC-15MHZ	
G020002	1498		529	80009	009	S1 OSCILLOSCOPE, DC-15MHZ	
L100024	4926		530	04246	042	94 SEMICONDUCTOR TEST SET	
G050074	2234		5300A	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G050073	2236		5303A	20400	010	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	

PART II TIME CROSS-REFERENCE LIST						06/25/80	
GENERAL PURPOSE TIME DTS ETC SPECIFICATIONS							
INDEX NUMBER	TIME TYPE DESIGNATOR	WFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME	
C050005 2114		5303R	28400 010	57	UNIVERSAL COUNTER (DC TO 500MHZ)		
A031019 1414		5305	31922 000			25 BRIDGE, UNIVERSAL	
C031007 1499		531A	00009 009	51	OSCILLOSCOPE, DC-15MHZ		
C050035 2237		5321A	28569 010	57	UNIVERSAL COUNTER (DC TO 500MHZ)		
C050026 2115		5321R	28400 010	57	UNIVERSAL COUNTER (DC TO 500MHZ)		
C050004 2172		5325R	28400 010	57	UNIVERSAL COUNTER (DC TO 500MHZ)		
C050050 5160		5325AC15	28400 010	57	UNIVERSAL COUNTER (DC TO 500MHZ)		
C050004 2116		5326A	28400 010	57	UNIVERSAL COUNTER (DC TO 500MHZ)		
C050053 2239		5326R	28400 010	57	UNIVERSAL COUNTER (DC TO 500MHZ)		
R100026 2513		533	28569 990	36	TUBE TESTER		
C050000 4664		5340AH10	28400 010	57	UNIVERSAL COUNTER (DC TO 500MHZ)		
C050005 2241		5345A	28400 010	57	UNIVERSAL COUNTER (DC TO 500MHZ)		
C031000 1500		535A	00009 009	51	OSCILLOSCOPE, DC-15MHZ		
C032003 4505		5354D	00009 009	51	OSCILLOSCOPE, DC-15MHZ		
C033006 4508		5354T	00009 009	51	OSCILLOSCOPE, DC-15MHZ		
C031005 1501		536	00009 009	51	OSCILLOSCOPE, DC-15MHZ		
M016015 2802		536A	28400 020			49 FREQUENCY METER C 50 FREQUENCY METER D 51 FREQUENCY METER E 52 FREQUENCY METER F	
C050004 2242		5360A	28400 010	57	UNIVERSAL COUNTER (DC TO 500MHZ)		
C031024 1742		540A	28400 019	50	FREQUENCY COUNTER (10HZ TO 10GHZ)		
A043033 1415		5400	21793 032	29	MULTIMETER, DIGITAL		
A031003 1949		5430A	31922 000	25	BRIDGE, UNIVERSAL		
C031006 1502		545A	00009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ		
D050035 5171		546A	28400 047	19	GENERATOR, SIGNAL FUNCTION		
C030010 1503		547	00009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ		

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PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME DTS EYE SPECIFICATIONS

INDEX NUMBER	TME ID	TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
L040048	4919		547A	28480 027			77 LOGIC ANALYZER
C010114	1504		749	80009 094	53	OSCILLOSCOPE, DUAL TRACE, STORAGE	
C030026	1505		551	80009 080	55	OSCILLOSCOPE, DUAL TRACE, DC400MHZ	
G050031	4658		5512A	28480 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
C030028	1506		555	80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030024	1507		556	80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
A013034	2577		5400	21793 078	29	MULTIMETER, DIGITAL	
A043035	1356		564	65052 032	28	MULTIMETER, DIGITAL HANDHELD	
A043035	1508		564	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
A043017	1416		5640	21793 078	29	MULTIMETER, DIGITAL	
C030002	1509		565	80009 080	55	OSCILLOSCOPE, DUAL TRACE, DC400MHZ	
D050037	2578		57032127	21793 078	29	MULTIMETER, DIGITAL	94 SEMICONDUCTOR TEST SET
L100015	2514		575	80009 045			94 SEMICONDUCTOR TEST SET
L100017	2515		576	80009 045			
C030005	1510		581	80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030021	1511		585A	80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
G032056	3365		587A	77327 020			50 FREQUENCY METER D 51 FREQUENCY METER E
G032012	1763		59	14140 020			43 FIELD STRENGTH METER A 44 FIELD STRENGTH METER B
A043058	1417		5900	21793 078	29	MULTIMETER, DIGITAL	26 INSULATION, TEST SET
A032025	4555		60841A1106904	83298 025			29 MULTIMETER, DIGITAL
A043047	1357		600	60741 032	28	MULTIMETER, DIGITAL HANDHELD	
D033001	4755		600	05413 032	29	MULTIMETER, DIGITAL	
A012010	2510		6000	28569 072	36	TUBE TESTER	
L150022	2694		6000A	28569 072	36	TUBE TESTER	
D010086	4599		6039A	89536 106			18 GENERATOR, SIGNAL, VHF

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PART II TMOE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMOE QTS ETE SPECIFICATIONS

INDEX NUMBER	TMOE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A043047	1358		60481A1061094	77620 998			26 INSULATION, TEST SET
D010007	1643		606R	28480 051			03 SIGNAL GENERATOR, HF 18 GENERATOR, SIGNAL, VHF 17 SIGNAL GENERATOR, VHF A 01 AUDIO OSCILLATOR
D010098	3366		606CR	28480 106	18	GENERATOR, SIGNAL, VHF	
	1744		608D	28480 998	18	GENERATOR, SIGNAL, VHF	
A033016	1359		610FH	03438 118			28 MULTIMETER, DIGITAL HANDHELD
L040053	4921		61008	12578 014	74	DISTORTION ANALYZER	
E013032	1745		611	70998 040	61	WATTMETER, RF	
E013023	1746		612	70998 040	61	WATTMETER, RF	
C050012	2117		6127	80053 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
C050017	1747		614A	06692 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
C050011	2118		6146	80053 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
D010082	1644		616B	28480 053	05	SIGNAL GENERATOR, SHF A	06 SIGNAL GENERATOR, SHF B
A013025	1759		617	54294 998			30 OHMMETER 31 OHMMETER, EARTH TESTER
D010135	1864		6188R	28480 053	06	SIGNAL GENERATOR, SHF B	12 SIGNAL GENERATOR, SHF H
A012037	1960		622	65092 077			28 MULTIMETER, DIGITAL HANDHELD
D050015	1848		62545	13222 050			04 GENERATOR, SIGNAL, PULSE
A032006	1319		63CH00	24446 025	26	INSULATION, TEST SET	
A041025	1360		630	60741 998	28	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
A041046	1361		631	60741 032	28	MULTIMETER, DIGITAL HANDHELD	
C050063	2245		6316A	06811 019	58	FREQUENCY COUNTER (10HZ TO 180MHZ)	
A020027	1961		633	65092 002			23 AMMETER, AC, CLAMP-ON
A042007	1362		633VA1	65092 032			28 MULTIMETER, DIGITAL HANDHELD
C050078	4662		6401	17778 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
D010087	1646		6418	03782 109	21	SNEEP GENERATOR, SHF	

PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME DTS EYE SPECIFICATIONS

06/25/00

INDEX NUMBER	TME TYPE ID DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
0060015	1866	641K	03702 109	21	SWEEP GENERATOR, SHF	
L100017	2516	650	55026 990	94	SEMICONDUCTOR TEST SET	
D060024	4612	650	80069 049			21 SWEEP GENERATOR, SHF 22 SWEEP GENERATOR, UHF/VHF
D010139	1900	650ARC03	28480 990	01	AUDIO OSCILLATOR	
D010025	1647	651A	28480 006	01	AUDIO OSCILLATOR	
D010128	1867	651R	28480 006	01	AUDIO OSCILLATOR	
F060007	3168	660	18479 021	89	GAUSS METER	
D010164	4603	6600	80069 049			21 SWEEP GENERATOR, SHF 22 SWEEP GENERATOR, UHF/VHF 19 GENERATOR, SIGNAL FUNCTION
A041030	1364	666H	60741 032	20	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
A041049	1365	666HW	60741 032	20	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
A041037	1418	666RW669RL	60741 032	20	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
F070008	4646	6740	01518 070			96 TEMPERATURE INDICATOR
A032007	1366	679	07239 025	27	MEGOhmmETER	
D010158	1869	686A	28480 990	21	SWEEP GENERATOR, SHF	
A020027	1962	689	65092 990	20	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
A031010	4550	689ZF	65092 035	30	OhmmETER	
D060031	1870	694C	28480 049	21	SWEEP GENERATOR, SHF	
D080029	1905	694CH01	28480 049	21	SWEEP GENERATOR, SHF	
C032031	4507	7A11	80009 080	55	OSCILLOSCOPE, DUAL TRACE, DC400MHZ	
C032029	1571	7A12	80009 090	54	OSCILLOSCOPE, DUAL TRACE, DC200MHZ	
C033013	1571	7A14	80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C032027	1576	7A19	80009 085	56	OSCILLOSCOPE, DC-500MHZ	
C032022	1580	7A24	80009 080	55	OSCILLOSCOPE, DUAL TRACE, DC400MHZ	
C033003	1590	7M51	80009 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	

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PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME OTS ETE SPECIFICATIONS

INDEX NUMBER	TME ID	TME TYPE	DFSGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C033012	1577			7870	80009 090	54	OSCILLOSCOPE, DUAL TRACE, DC-200MHZ	
C033011	1579			7871	80009 090	54	OSCILLOSCOPE, DUAL TRACE, DC-200MHZ	
C033005	1581			7892	80009 085	56	OSCILLOSCOPE, DC-500MHZ	
C033023	4599			7892A	80009 085	56	OSCILLOSCOPE, DC-500MHZ	
C030003	1583			7CTFM	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
L060006	4923			7001F	80009 027			77 LOGIC ANALYZER
C033024	4804			7018	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
C030041	1584			7013	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
C030039	1585			7014	80009 085	56	OSCILLOSCOPE, DC-500MHZ	
C050002	1756			7015	80009 018	57	UNIVERSAL COUNTER (DC TO 500MHZ)	
C040005	1627			7113	80009 061	68	SPECTRUM ANALYZER, RF	
C040105	4869			7118	80009 062			69 STANDING WAVE RATIO (SWR) MEIER
C034004	1628			7111	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
D010171	1890			7062MW	95105 016	56	MICROWAVE LINK ANALYZER	
A042010	1419			7000	96662 032	28	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
C012003	1447			7001AR	28480 084	98	X-Y RECORDER	
C050019	1462			7003	91417 013	72	DATA ERROR TEST SET	
C012007	4575			7034A	28480 084	98	X-Y RECORDER	
C012005	1448			7035A	28480 084	98	X-Y RECORDER	
F080003	4648			7039960009	65092 119	90	OPTICAL TEST SET	
A011076	1963			704HSR	95800 076	41	VOLTMETER, AC TRUE RMS	
A031074	1420			7048	79409 022	25	BRIDGE, UNIVERSAL	
A041002	1421			7050	06811 032	29	MULTIMETER, DIGITAL	
C040007	1649			70751	12678 061	68	SPECTRUM ANALYZER, RF	
	1881			71	14140 998	19	GENERATOR, SIGNAL FUNCTION	
A012015	1422			7100A	13989 078	29	MULTIMETER, DIGITAL	



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PART II INDE CROSS-REFERENCE LIST  
GENERAL PURPOSE INDE OTS EYE SPECIFICATIONS

INDEX NUMBER	INDE TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
G050075	2246	7150R	80053 018	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
B021016	1367	716C	24655 011	25 BRIDGE, UNIVERSAL	
G050015	2120	7175R	80053 018	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
A031037	1320	72439	07239 008		30 OHMMETER 31 OHMMETER, EARTH TESTER
A011070	1964	727	01113 076	41 VOLTMETER, AC TRUE RMS	
A013040	2048	7300A631	98438 012	29 MULTIMETER, DIGITAL	
G031015	1700	7310	06692 018	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
G030051	1449	7313	80009 094	S3 OSCILLOSCOPE, DUAL TRACE, STORAGE	
D010014	3449	7350A	80053 998		48 FREQUENCY METER B
G050028	1701	737CH	06692 018	S7 UNIVERSAL COUNTER (DC TO 500MHZ)	
D080031	1871	739AR	28480 051		01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF
B022013	1514	740	23338 038	60 PHASE METER	
A012040	1965	740B	28480 121	38 VOLTMETER, DIFFERENTIAL	
	4573	7402A137	98220 036	91 OSCILLOGRAPHIC RECORDER A	
C010015	5176	7402A137	28480 036	41 VOLTMETER, AC TRUE RMS	
C030007	2112	7403N	28480 091	S2 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
A013010	1966	741R	28480 121	38 VOLTMETER, DIFFERENTIAL	
B021006	5177	750	04901 008	25 BRIDGE, UNIVERSAL	
	1369	750	04901 998	25 BRIDGE, UNIVERSAL	
F060901	1702	750	49673 021	89 GAUSS METER	
D080028	1872	750S138	33013 106	18 GENERATOR, SIGNAL, VHF	17 SIGNAL GENERATOR, VHF A
C031016	1451	7514	80009 094	S3 OSCILLOSCOPE, DUAL TRACE, STORAGE	
G050075	2271	75600AS	19200 998	97 VIBRATION TEST SET	
C031003	1452	7603	80009 091	S2 OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C031029	4861	7613	80009 094	S3 OSCILLOSCOPE, DUAL TRACE, STORAGE	

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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE QTS ETE SPECIFICATIONS

INDEX NUMBER	TMDE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
D020027	4608		7616	12678 055	13	SIGNAL GENERATOR, THER NOISEA	
D020028	4609		7617	12678 055	13	SIGNAL GENERATOR, THER NOISEA	
L100002	2696		7620	92860 045			94 SEMICONDUCTOR TEST SET
A031042	1423		7630	98438 032	29	MULTIMETER, DIGITAL	
C031028	4060		763105	80009 089	51	OSCILLOSCOPE, DC-15MHZ	
C030036	1466		765M	72314 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C030001	4582		765MA	92294 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
B022013	1515		765MHF	30869 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
C050075	2283		7661921	19200 998	97	VIBRATION TEST SET	
C031018	1468		767H	72314 091	52	OSCILLOSCOPE, DUAL TRACE, DC100MHZ	
A032009	1474		76761	07239 025	27	MEGOhmmETER	
C012004	3560		7679	07239 998	29	MULTIMETER, DIGITAL	
A011069	4536		77000	50423 076	41	VOLTMETER, AC TRUE RMS	
C031017	1456		7704A	80009 090	54	OSCILLOSCOPE, DUAL TRACE, DC200MHZ	
A041050	1370		779	65092 032	28	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
A031023	4552		780	04237 035	31	OhmmETER, EARTH TESTER	
D010100	1684		7808	77327 052			03 SIGNAL GENERATOR, HF
A031035	1371		784	03626 035	29	MULTIMETER, DIGITAL	
A041045	1372		785	65092 032	28	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
A031037	1371		79X031	24446 998	26	INSULATION, TEST SET	
C031015	1458		7904	80009 085	56	OSCILLOSCOPE, DC-500MHZ	
L150019	2460		8VP4	28569 998	36	TUBE TESTER	
A041048	4559		8000A	89536 032	29	MULTIMETER, DIGITAL	
A041011	4568		8000A	60741 032	29	MULTIMETER, DIGITAL	
A041056	4560		8000AMTR01	89536 032	29	MULTIMETER, DIGITAL	
A041054	1426		8000A01	89536 032	29	MULTIMETER, DIGITAL	

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PART II TIME CROSS-REFERENCE LIST  
GENERAL PURPOSE TIME OTS EYE SPECIFICATIONS

INDEX NUMBER	TIME ID	TYPE DESIGNATOR	MFG MODEL NR	FSCM	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
D050005	1849		A0058	28480 050			04 GENERATOR, SIGNAL, PULSE
A041016	1373		R01	60741 032	28	MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
A041070	4566		R020A01	89536 032	29	MULTIMETER, DIGITAL	
A013007	1967		R03RR	89536 121	38	VOLTMETER, DIFFERENTIAL	
A013007	1968		R03D	89536 998	29	MULTIMETER, DIGITAL	
A013014	1969		R030AC	89536 121	38	VOLTMETER, DIFFERENTIAL	
D050061	4611		R082A	28480 050			19 GENERATOR, SIGNAL, PULSE 04 GENERATOR, SIGNAL, PULSE
A043040	1427		R100A	89536 032	29	MULTIMETER, DIGITAL	
K020007	2325		R100AM	12578 112	71	AUDIO SYSTEM TEST SET	
A043041	1428		R100A01	89536 032	29	MULTIMETER, DIGITAL	
A043031	1429		R100R	89536 032	29	MULTIMETER, DIGITAL	
A041017	1430		R120A	89536 032	29	MULTIMETER, DIGITAL	
A043039	1431		R125A	89536 032	29	MULTIMETER, DIGITAL	
	2093		R151032	18876 998	04	GENERATOR, SIGNAL, PULSE	
A042017	1443		R174R00	24617 998	26	INSULATION, TEST SET	
A043053	1432		R200A	89536 078	29	MULTIMETER, DIGITAL	
A042009	1374		R27X51	24446 032	28	MULTIMETER, DIGITAL HANDHELD	
A043021	1433		R300A	89536 032	29	MULTIMETER, DIGITAL	
A043032	1434		R350A	89536 032	29	MULTIMETER, DIGITAL	
A020020	2053		R36820	65054 003			29 MULTIMETER, DIGITAL
A041071	4567		R375A	89536 032	29	MULTIMETER, DIGITAL	
A041065	1435		R400A	89536 078	29	MULTIMETER, DIGITAL	
R022004	4847		R405AH16	28480 074	85	VECTOR VOLTMETER	
C040002	1685		R407A	28480 061			68 SPECTRUM ANALYZER, RF
C040074	1686		R4105210	28480 062	68	SPECTRUM ANALYZER, RF	

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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE OYS ETE SPECIFICATIONS

INDEX NUMBER	TMDE ID	TMDE TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
C040004	1687		84105310	28480 062	68	SPECTRUM ANALYZER, RF	
C040030	1688		8412A	28480 061			68 SPECTRUM ANALYZER, RF
C040066	1689		8414A	28480 062			68 SPECTRUM ANALYZER, RF
C040049	1691		8445A	28480 062			68 SPECTRUM ANALYZER, RF
M014024	4745		8478R	28480 041	63	POWER METER, SHF	
A043044	1375		850	60741 032	28	MULTIMETER, DIGITAL HANDHELD	
C040097	4594		8505A	28480 061	68	SPECTRUM ANALYZER, RF	
C040007	1650		851A852A	28480 998	68	SPECTRUM ANALYZER, RF	
C040038	3760		851A8551A	28480 062	68	SPECTRUM ANALYZER, RF	
C040087	4592		8551B	28480 062	68	SPECTRUM ANALYZER, RF	
C040022	1693		8552A	28480 061	68	SPECTRUM ANALYZER, RF	
C040045	1694		8552R017	28480 061			68 SPECTRUM ANALYZER, RF
C040042	1695		8553A	28480 061	68	SPECTRUM ANALYZER, RF	63 POWER METER, SHF
C040044	1698		8554L	28480 061	68	SPECTRUM ANALYZER, RF	
D010017	1600		8554L8522AH06	28480 061	68	SPECTRUM ANALYZER, RF	
M022013	2717		8566309	19200 998	36	TUBE TESTER	
D080030	2068		8600A	28480 108	22	SWEEP GENERATOR, UHF/VHF	
A040003	4462		8600A	89536 078	29	MULTIMETER, DIGITAL	
A040004	5184		8600A01	89536 078	29	MULTIMETER, DIGITAL	
D060013	2069		8601A	28480 052	20	SWEEP GENERATOR, HF	
D060023	2070		8620A	28480 049	21	SWEEP GENERATOR, SHF	
D070054	4625		8621A	28480 049	21	SWEEP GENERATOR, SHF	
D070045	4616		86210A	28480 109			22 SWEEP GENERATOR, UHF/VHF 20 SWEEP GENERATOR, HF
D070036	2083		86220A	28480 998	22	SWEEP GENERATOR, UHF/VHF	
D070036	2098		86220AH00	28480 049	21	SWEEP GENERATOR, SHF	

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PART II TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE DIS EYE SPECIFICATIONS

INDEX NUMBER	TMDE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
0070047	4618		86222A	28400 049			21 SWEEP GENERATOR, SHF 22 SWEEP GENERATOR, UHF/VHF
0060027	4475		86227R02	28400 049			21 SWEEP GENERATOR, SHF 22 SWEEP GENERATOR, UHF/VHF
0070042	2084		86230RH80	28400 049	21	SWEEP GENERATOR, SHF	
0070040	2085		86241AH80	28400 049	21	SWEEP GENERATOR, SHF	
0070038	2086		86242AH80	28400 049	21	SWEEP GENERATOR, SHF	
0070039	2087		86250RH80	28400 049	21	SWEEP GENERATOR, SHF	
0070046	4617		86290A	28400 049	21	SWEEP GENERATOR, SHF	
0070055	4626		86320A	28400 049	21	SWEEP GENERATOR, SHF	
0070058	4629		86330A	28400 049	21	SWEEP GENERATOR, SHF	
0070056	4627		86341R	28400 049	21	SWEEP GENERATOR, SHF	
0070057	4628		86342A	28400 049	21	SWEEP GENERATOR, SHF	
0070059	4630		86350A	28400 049	21	SWEEP GENERATOR, SHF	
0010052	1591		86400001	28400 106	18	GENERATOR, SIGNAL, VHF	17 SIGNAL GENERATOR, VHF A
0010085	1593		86400001	28400 106	18	GENERATOR, SIGNAL, VHF	17 SIGNAL GENERATOR, VHF A
0010120	1594		8654A	28400 106	18	GENERATOR, SIGNAL, VHF	
0010103	5186		8660A01040509	28400 106			18 GENERATOR, SIGNAL, VHF
0080051	2073		8660N	28400 107			01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF 17 SIGNAL GENERATOR, VHF A 15 SIGNAL GENERATOR, UHF A
0080081	4635		8660C	28400 106			19 GENERATOR, SIGNAL FUNCTION 18 GENERATOR, SIGNAL, VHF
0070032	2089		86601A	28400 051			01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF 17 SIGNAL GENERATOR, VHF A
0070031	2090		86602A	28400 107			15 SIGNAL GENERATOR, UHF A 16 GENERATOR, SIGNAL, UHF
0040083	3587		86602R	28400 107			18 GENERATOR, SIGNAL, VHF

PART II TMD CROSS-REFERENCE LIST  
GENERAL PURPOSE TMD OTS ETC SPECIFICATIONS

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INDEX NUMBER	TMD ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN CODE	FAM FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
0070049	4620		86607A	28480 053	18 GENERATOR, SIGNAL, VHF	15 SIGNAL GENERATOR, UHF A 16 GENERATOR, SIGNAL, UHF
0070030	2091		86631R	28480 107	18 GENERATOR, SIGNAL, VHF	19 GENERATOR, SIGNAL FUNCTION 12 SIGNAL GENERATOR, SHF II
0070029	2092		96632A	28480 107	18 GENERATOR, SIGNAL, VHF	16 GENERATOR, SIGNAL, VHF 15 SIGNAL GENERATOR, UHF A 22 SWEEP GENERATOR, UHF/VHF
0070043	4977		86632R	28480 106	18 GENERATOR, SIGNAL, VHF	18 GENERATOR, SIGNAL, VHF 15 SIGNAL GENERATOR, UHF A 22 SWEEP GENERATOR, UHF/VHF
0070048	4619		86633R	28480 106	18 GENERATOR, SIGNAL, VHF	22 SWEEP GENERATOR, UHF/VHF 15 SIGNAL GENERATOR, UHF A
0080023	4670		8672A	28480 053	12 SIGNAL GENERATOR, SHF H	20 SWEEP GENERATOR, HF 21 SWEEP GENERATOR, SHF 22 SWEEP GENERATOR, UHF/VHF
0060026	2074		8670A	28480 052		
0060045	4112		8690RM12	28480 049	21 SWEEP GENERATOR, SHF	
0070044	4615		8691A	28480 049	21 SWEEP GENERATOR, SHF	
0070011	4613		8692A	28480 049	21 SWEEP GENERATOR, SHF	
0060046	4113		8693AM17	28480 049	21 SWEEP GENERATOR, SHF	
0070035	2077		8695A	28480 049		21 SWEEP GENERATOR, SHF
0070034	2079		9696A	28480 049		21 SWEEP GENERATOR, SHF
0070012	3589		8697A	28480 049		21 SWEEP GENERATOR, SHF
L100016	2518		870	28569 045	94 SEMICONDUCTOR TEST SET	
0070002	2081		9708A	28480 106		17 SIGNAL GENERATOR, VHF A 18 GENERATOR, SIGNAL, VHF 01 AUDIO OSCILLATOR 03 SIGNAL GENERATOR, HF
A012021	3703		880	28009 077	29 MULTIMETER, DIGITAL	
C030806	1705		890A	94668 038	60 PHASE METER	
A012009	1970		995A	89536 077		38 VOLTMETER, DIFFERENTIAL

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PART 11 TMDE CROSS-REFERENCE LIST  
GENERAL PURPOSE TMDE OTS ETC SPECIFICATIONS

INDEX NUMBER	TMDE ID	TYPE DESIGNATOR	MFG MODEL NR	FSCN	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A013011	1971		887A	89536 121	38	VOLTMETER, DIFFERENTIAL	
A013017	2560		887ARM	89536 121	38	VOLTMETER, DIFFERENTIAL	
L100004	2519		890A	28569 045	94	SEMICONDUCTOR TEST SET	
E013057	2579		89008	28480 040			61 WATTMETER, RF 63 POWER METER, SHF
C040101	4865		8901A	28480 031			57 MODULATION METER
D080029	1906		8903RM12	28480 998	21	SWEEP GENERATOR, SHF	
A012029	1972		891A	89536 121	38	VOLTMETER, DIFFERENTIAL	
A013013	1973		893A	89536 121	38	VOLTMETER, DIFFERENTIAL	
A012042	4541		895A	89536 121			38 VOLTMETER, DIFFERENTIAL
K073016	2397		901	51277 013	72	DATA ERROR TEST SET	
A020040	4549		9014905001	65092 003	29	MULTIMETER, DIGITAL	
K080011	4696		902R	64959 071	82	TRANSMISSION TEST SET	
K090076	4699		903R	64959 071	82	TRANSMISSION TEST SET	
D020019	1873		904A	77327 055	13	SIGNAL GENERATOR, THERM NOISE	
K090059	2391		904L	28044 071			81 TRANSMISSION TEST SET 82 TRANSMISSION TEST SET
A011076	4578		9041906001	65092 078	29	MULTIMETER, DIGITAL	
A020039	4548		9047905002	65092 001			23 AMMETER, AC, CLAMP-ON
	3648		906	28009 998			91 OSCILLOGRAPHIC RECORDER A 92 OSCILLOGRAPHIC RECORDER B
C032016	1550		906A	72264 998			91 OSCILLOGRAPHIC RECORDER A 92 OSCILLOGRAPHIC RECORDER B
K050009	2448		90662	76487 998	47	FREQUENCY METER A	
A011030	4512		910A	04901 079	40	VOLTMETER, RF	
A011003	2038		91MR57	04901 079	40	VOLTMETER, RF	
A011062	2561		910APAV	89536 080	41	VOLTMETER, AC TRUE RMS	
	2094		9142A14	88600 998	04	GENERATOR, SIGNAL, PULSE	

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PART II TME CROSS-REFERENCE LIST  
GENERAL PURPOSE TME DTS ETE SPECIFICATIONS

INDEX NUMBER	TME ID	TME TYPE DESIGNATOR	MFG MODEL NR	FSCM CODE	FAM CODE	FUNCTIONALLY COMPATIBLE BY SPEC NR AND SPEC NAME	PARTIALLY COMPATIBLE BY SPEC NR AND SPEC NAME
A012011	2049		9180R	16655	077		38 VOLTMEETER, DIFFERENTIAL
M024024	3483		9700147	19203	032	29 MULTIMETER, DIGITAL	
A013027	2039		93AD	04901	080	41 VOLTMEETER, AC TRUE RMS	
A020009	1925		931	65092	003		29 MULTIMETER, DIGITAL
A011007	4530		9318	89536	121	38 VOLTMEETER, DIFFERENTIAL	
F070007	4645		9330C	13571	070		96 TEMPERATURE INDICATOR
C060009	1651		934	09553	031	57 MODULATION METER	
A043057	1377		970A	28460	032	29 MULTIMETER, DIGITAL	
C050002	4663		98	95036	018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	
L030011	2520		990	60741	032	28 MULTIMETER, DIGITAL HANDHELD	29 MULTIMETER, DIGITAL
	4460				018	57 UNIVERSAL COUNTER (DC TO 500MHZ)	



## *APPENDIX D*

### LR TECHNICAL DATA

This appendix presents the identification and technical data applicable to each LR developed by the DARCOM/TRADOC JWG and included in this project. The LRs are sequenced by fiscal year and LR number.

LR TECHNICAL DATA

FAMILY CODE 018

ID NO 5275

ACCURACY (PCT) OR AS STATED

PARAMETER NAME

PARAMETER CODE

00100

00105

00140

00210

26500

52400

63600

77220

78000

UNIVERSAL COUNTER (DC TO 500MHZ)

TYPE III, CLASS S, COLOR R, STYLE I, PER MIL-T-28800

50MHZ/400HZ/400HZ S-PHASE 115/230VAC

0 TO +50C OPERATING / -55 TO +75C STORAGE

DC TO 500MHZ

CAPABLE OF MAKING PERIOD MEAS AS WELL AS PERIOD AVERAGING

50MV RMS OR LESS

INTERNAL HIGH STABILITY TIME BASE

CAPABLE OF MEAS 100NSEC SINGLE SHOT TIME INTERVALS

LR TECHNICAL DATA

FAMILY CODE 019

ID NO 5276

ACCURACY (PCT) OR AS STATED

PARAMETER NAME

PARAMETER CODE

00100

00105

00140

00210

26500

63600

77220

FREQUENCY COUNTER (10HZ TO 10GHZ)

TYPE III, CLASS S, COLOR R, STYLE I, PER MIL-T-28800

50MHZ/400HZ/400HZ S-PHASE 115/230VAC

0 TO +50C OPERATING / -55C TO +75C STORAGE

10HZ TO 10GHZ

10HZ - 250MHZ/25MV RMS OR LESS/1-10GHZ/1-200RM MAX)

INTERNAL HIGH STABILITY TIME BASE

LR TECHNICAL DATA

FAMILY CODE 125

ID NO 5277

ACCURACY (PCT) OR AS STATED

PARAMETER NAME

PARAMETER CODE

00100

00105

00140

00210

26500

56010

63600

77220

FREQUENCY COUNTER (AUTOMATIC PULSED RE MEAS CAPABILITY)

TYPE III, CLASS S, COLOR R, STYLE I, PER MIL-T-28800

50MHZ/400HZ/400HZ S-PHASE 115/230VAC

0 TO +50C OPERATING / -55C TO +75C STORAGE

300MHZ TO 10GHZ

MEAS P/W AT 50PCT AMP POINT, OF 100NSEC M/W REP F, 50HZ MI

100MHZ-10GHZ/1-100RM) 10GHZ-10GHZ/1-500M OR LESS)

INTERNAL HIGH STABILITY TIME BASE



LITTER REQUIREMENT(ELP)		LR TECHNICAL DATA		FAMILY CODE	ID NO	ACCURACY (PCT) OR AS STATED
PARAMETER NAME	PARAMETER CODE	NOMENCLATURE	DIGITAL MULTIMETER 3 1/2 DIGITS			
10420417024				032	5208	
PARAMETER NAME	PARAMETER CODE	NOMENCLATURE	DIGITAL MULTIMETER 4 1/2 DIGITS	FAMILY CODE	ID NO	ACCURACY (PCT) OR AS STATED
10420417029						
FUNCTION NAME	00100	DIGITAL MULTIMETER 3 1/2 DIGITS	DIGITAL MULTIMETER 4 1/2 DIGITS	032	5209	
CLASSIFICATION	00105	TYPE III-CLASS 5, COLOR R, STYLE F, PER MIL-T-20000	TYPE III-CLASS 5, COLOR R, STYLE F, PER MIL-T-20000			
MEASUREMENTS IN MM/INS	00110	80MM/3.5IN/15MM/2IN/19MM/17.5IN/10	80MM/3.5IN/15MM/2IN/19MM/17.5IN/10	032	5209	
WEIGHT IN KG/LBS	00120	0.4KG/0.9LBS	0.4KG/0.9LBS			
ENCLOSURE STYLE	00130	CAPABILITY TO HANG / ATTACHING INSTRUMENT TO EQUIP UNIT	CAPABILITY TO HANG / ATTACHING INSTRUMENT TO EQUIP UNIT	032	5209	
PWR CONSUMPTION/CONSUMPTION	00140	BATTERY OPERATION	BATTERY OPERATION			
PEAKING MEASUREMENT	00160	DIGITAL READOUT AT 3 1/2 DIGITS	DIGITAL READOUT AT 3 1/2 DIGITS	032	5209	
TEMP MEASUREMENT-OPERATING	00210	-55C TO +75C STORAGE	-55C TO +75C STORAGE			
CURRENT/AC	14400	0 TO 10AMPS/AC	0 TO 10AMPS/AC	032	5209	
CURRENT/DC	14800	0 TO 10AMPS/DC	0 TO 10AMPS/DC			
FREQ RESPONSE	26900	50HZ TO 450HZ OR GREATER	50HZ TO 450HZ OR GREATER	032	5209	
RESISTANCE MEASUREMENT	59600	0 TO 20MEG OHMS	0 TO 20MEG OHMS			
VOLTAGE/AC	84000	0 TO 600VAC/AC GREATER	0 TO 600VAC/AC GREATER	032	5209	
VOLTAGE/DC	84110	0 TO 100VDC/DC	0 TO 100VDC/DC			
VOLTAGE/DC INPUT IMPEDANCE	84400	0 TO 1000VDC/DC	0 TO 1000VDC/DC	032	5209	
VOLTAGE/DC INPUT IMPEDANCE	84420	0 TO 1000VDC/DC	0 TO 1000VDC/DC			

LITTER REQUIREMENT(ELP)		LR TECHNICAL DATA		FAMILY CODE	ID NO	ACCURACY (PCT) OR AS STATED
PARAMETER NAME	PARAMETER CODE	NOMENCLATURE	DIGITAL MULTIMETER 4 1/2 DIGITS			
10420417029				032	5209	
PARAMETER NAME	PARAMETER CODE	NOMENCLATURE	DIGITAL MULTIMETER 4 1/2 DIGITS	FAMILY CODE	ID NO	ACCURACY (PCT) OR AS STATED
10420417029						
FUNCTION NAME	00100	DIGITAL MULTIMETER 4 1/2 DIGITS	DIGITAL MULTIMETER 4 1/2 DIGITS	032	5209	
CLASSIFICATION	00105	TYPE III-CLASS 5, COLOR R, STYLE F, PER MIL-T-20000	TYPE III-CLASS 5, COLOR R, STYLE F, PER MIL-T-20000			
MEASUREMENTS IN MM/INS	00110	80MM/3.5IN/15MM/2IN/19MM/17.5IN/10	80MM/3.5IN/15MM/2IN/19MM/17.5IN/10	032	5209	
WEIGHT IN KG/LBS	00120	0.4KG/0.9LBS	0.4KG/0.9LBS			
PWR CONSUMPTION/CONSUMPTION	00140	50HZ TO 450HZ OR GREATER	50HZ TO 450HZ OR GREATER	032	5209	
PEAKING MEASUREMENT	00160	0 TO 20MEG OHMS	0 TO 20MEG OHMS			
TEMP MEASUREMENT-OPERATING	00210	0 TO 600VAC/AC GREATER	0 TO 600VAC/AC GREATER	032	5209	
CURRENT/AC	14400	0 TO 1000VDC/DC	0 TO 1000VDC/DC			
CURRENT/DC	14800	0 TO 1000VDC/DC	0 TO 1000VDC/DC	032	5209	
FREQ RESPONSE	26900	0 TO 1000VDC/DC	0 TO 1000VDC/DC			
OVERLOAD CHARGE	48400	0 TO 1000VDC/DC	0 TO 1000VDC/DC	032	5209	
OVERLOAD RESET	48410	0 TO 1000VDC/DC	0 TO 1000VDC/DC			
RESISTANCE MEASUREMENT	59600	0 TO 1000VDC/DC	0 TO 1000VDC/DC	032	5209	
VOLTAGE/AC	84000	0 TO 1000VDC/DC	0 TO 1000VDC/DC			
VOLTAGE/DC	84110	0 TO 1000VDC/DC	0 TO 1000VDC/DC	032	5209	
VOLTAGE/DC INPUT IMPEDANCE	84400	0 TO 1000VDC/DC	0 TO 1000VDC/DC			
VOLTAGE/DC INPUT IMPEDANCE	84420	0 TO 1000VDC/DC	0 TO 1000VDC/DC			

LR TECHNICAL DATA

FAMILY  
CODE

10 MO  
5212

ACCURACY (PCT)  
OR AS STATED

OSCILLOGRAPHIC RECORDER

PARAMETER

OSCILLOGRAPHIC RECORDER  
TYPE 111, CLASS 5, COLOR R, STYL L, PER MIL-T-28800  
403MM(19IN)X356MM(14IN)X430MM  
27.2KG(60LBS)  
50HZ/60HZ/400HZ 5-PHASE 115/230VAC  
-55C TO +75C STORAGE  
30 METERS (100)  
CHART SPEED 0.5 TO 200MM/SEC SELECTABLE IN 8 STEPS  
CH FRQ RESPONSE DC TO 30HZ  
INPUT 2 500KOHMS MIN  
RECORD 0 TO 250V AT 1MV/DIV TO 5V/DIV IN 8 STEPS  
CONTAIN 2 ANALOG CHANNELS W/AT LEAST 1 EVENT MARKER

PARAMETER NAME

PARAMETER CODE

00100  
00105  
00110  
00120  
00140  
00210  
10100  
11600  
26900  
34400  
37600  
47600

FOUR-DIGIT NAME  
CLASSIFICATION  
DIMENSIONS IN MM/INS  
WEIGHT IN KG/LBS  
PMW SUPPLIES/CONSUMPTION  
TEMP OPERATING  
CHART PAPER CAPACITY  
CHART SPEEDS  
FOLIO DISPOSE  
IMPEDANCE-INPUT  
INPUT VOLTAGE RANGE  
MIN OF RECORD CHANNELS

LR TECHNICAL DATA

FAMILY  
CODE

10 MO  
5200

ACCURACY (PCT)  
OR AS STATED

OSCILLOGRAPHIC RECORDER

PARAMETER

OSCILLOGRAPHIC RECORDER  
TYPE 111, CLASS 5, COLOR R, STYL L, PER MIL-T-28800  
403MM(19IN)X356MM(14IN)X430MM  
27.2KG(60LBS)  
50HZ/60HZ/400HZ 5-PHASE 115/230VAC  
-55C TO +75C STORAGE  
30 METERS (100)  
CHART SPEED 0.5 TO 200MM/SEC SELECTABLE IN 8 STEPS  
CH FRQ RESPONSE DC TO 30HZ  
INPUT 2 500KOHMS MIN  
RECORD 0 TO 250V AT 1MV/DIV TO 5V/DIV IN 8 STEPS  
CONTAIN 2 ANALOG CHANNELS W/AT LEAST 1 EVENT MARKER

PARAMETER NAME

PARAMETER CODE

00100  
00105  
00110  
00120  
00140  
00160  
00210  
05200  
20900  
41400  
63600  
71200

FOUR-DIGIT NAME  
CLASSIFICATION  
DIMENSIONS IN MM/INS  
WEIGHT IN KG/LBS  
PMW SUPPLIES/CONSUMPTION  
TEMP OPERATING  
CHART PAPER CAPACITY  
CHART SPEEDS  
FOLIO DISPOSE  
IMPEDANCE-INPUT  
INPUT VOLTAGE RANGE  
MIN OF RECORD CHANNELS

LR TECHNICAL DATA

LETTER REQUIREMENT(PLP)

10W20LR25057

FAMILY CODE 091

ID NO 5201

ACCURACY (PCT) OR AS STATED

OSCILLOSCOPE, DUAL TRACE, DC-100MHZ

PARAMETER CODE

PARAMETER

00100 OSCILLOSCOPE, DUAL TRACE, DC-100MHZ

00105 TYPE III, CLASS 5 COLOR R, STYLE L, PER MIL-T-28800

00110 0.043 CURIC METERS/2600 CURIC INCHES

00120 10KG/22LRS

00140 50,60 & 400HZ 5-PHASE 115/230VAC

00160 CRT, GRATICULE 8 BY 10CM

00210 7-55 TO 75 DEG C

05200 DC TO 100MHZ

20900 DUAL TRACE CAPABILITY

61800 3-5 MSEC MAXIMUM

61800 5MV MAXIMUM/DIVICM, VARIABLE TO 5V OR MORE/DIVICM

71200 VARIABLE FROM 0.05SEC/DIVICM TO 0.5SEC/DIVICM

LR TECHNICAL DATA

LETTER REQUIREMENT(PLP)

10W20LR25051

FAMILY CODE 094

ID NO 5202

ACCURACY (PCT) OR AS STATED

OSCILLOSCOPE, DUAL TRACE, STORAGE

PARAMETER CODE

PARAMETER

00100 OSCILLOSCOPE, DUAL TRACE, STORAGE

00105 TYPE III, CLASS 5, COLOR R, CLASS E, PER MIL-T-28800

00110 0.043 CURIC METERS/2600 CURIC INCHES

00120 14KG/31LRS

00140 50,60 & 400HZ 5-PHASE 115/230VAC

00160 CRT, GRATICULE

00210 7-55 TO 75 DEG C

05200 DC TO 100MHZ

20900 DUAL TRACE CAPABILITY

61800 3.5MSEC OR LESS

61800 5MV/DIVICM, VARIABLE TO 5V/DIVICM

69000 TRACES OPERABLE IN EITHER STORAGE OR NON-STORAGE

71200 VARIABLE FROM 0.05SEC/DIVICM TO 0.5SEC/DIVICM

LR TECHNICAL DATA		FAMILY CODE	ID NO	ACCURACY (PCT) OR AS STATED
NOMENCLATURE		090	5203	
OSCILLOSCOPE, DUAL TRACE, DC-200MHZ				
PARAMETER NAME	PARAMETER CODE	PARAMETER		
EQUIPMENT NAME	00100	OSCILLOSCOPE, DUAL TRACE, DC-200MHZ		
CLASSIFICATION	00105	TYPE III, CLASS 5, COLOR R, STYLE E, PER MIL-T-28800		
DIMENSIONS IN MM/INS	00110	0.045 CURIC METERS/2750 CURIC INCHES		
WEIGHT IN KG/LBS	00120	14KG/31LBS		
PWP CONDUCTS/CONSUMPTION	00140	50.60 ± 400HZ 5-PHASE 115/230VAC		
REACTANT MECHANISM	00160	CPT, GRATICULE 8 BY 10CM		
TEMP OPER/MIN-OPERATING	00210	7-55 TO 75 DEG C		
DAMPING	05200	DUAL TRACE CAPABILITY		
DUAL TRACE	20900	TO 2HV/DIVICHI, VARIABLE TO 5V OR MORE/DIVICHI		
SENSITIVITY	63600	VAR, FROM 10 MSEC/DIVICHI TO 0.05 SEC/DIVICHI		
SWEEP RATE	73200			

LR TECHNICAL DATA		FAMILY CODE	ID NO	ACCURACY (PCT) OR AS STATED
NOMENCLATURE		090	5204	
OSCILLOSCOPE, DUAL TRACE, DC-400MHZ				
PARAMETER NAME	PARAMETER CODE	PARAMETER		
EQUIPMENT NAME	00100	OSCILLOSCOPE, DUAL TRACE, DC-400MHZ		
CLASSIFICATION	00105	TYPE III, CLASS 5, COLOR R, STYLE E, PER MIL-T-28800		
DIMENSIONS IN MM/INS	00110	0.060 CURIC METERS/3685 CURIC INCHES		
WEIGHT IN KG/LBS	00120	19KG/40LBS		
PWP CONDUCTS/CONSUMPTION	00140	50.60 ± 400HZ 5-PHASE 115/230VAC		
REACTANT MECHANISM	00160	CPT, GRATICULE 8 BY 10CM		
TEMP OPER/MIN-OPERATING	00210	7-55 TO 75 DEG C		
DAMPING	05200	DC TO 400MHZ		
DUAL TRACE	20900	DUAL TRACE CAPABILITY		
SENSITIVITY	63600	TO 5HV/DIVICHI, VARIABLE TO 5V OR MORE/DIVICHI		
SWEEP RATE	73200	VARIABLE FROM 1 MSEC/DIVICHI TO 5 SEC/DIV		

EQUIPMENT NAME		LR TECHNICAL DATA		FAMILY CODE	
EQUIPMENT NAME		NOMENCLATURE		ID NO	
EQUIPMENT NAME		OSCILLOSCOPE, DC-500MHZ		5205	
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED		
EQUIPMENT NAME	00100	OSCILLOSCOPE, DUAL TRACE, DC-500MHZ			
CLASSIFICATION	00105	TYPE III, CLASS 5, COLOR R, STYLE F, PER MIL-T-28800			
DIMENSIONS IN MM/INS	00110	0.065 CURIC METERS/3800 CURIC INCHES			
WEIGHT IN KG/LBS	00120	15KG/32LBS			
PWR SUPPLIES/CONSUMPTION	00140	50.60 & 400HZ 5-PHASE 115/230VAC			
OR ADJUST METHOD(S)	00160	CRT, GRATICULE B BY 10CM			
TEMP OPER/NON-OPERATING	00210	7-55 TO 75 DEG C			
SANITIZATION	05200	DC TO 500MHZ			
SENSITIVITY	43600	TO 5MV/DIV (CH), VARIABLE TO 5V OR MORE/DIV (CH)			
SWEEP RATE	73200	VARIABLE FROM 10 NSEC/DIV (CH) TO 2.0 SEC/DIV (CH)			

EQUIPMENT NAME		LR TECHNICAL DATA		FAMILY CODE	
EQUIPMENT NAME		NOMENCLATURE		ID NO	
EQUIPMENT NAME		SIGNAL GENERATOR, LF, AUDIO OSCILLATOR		5214	
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED		
EQUIPMENT NAME	00100	SIGNAL GENERATOR, LF, AUDIO OSCILLATOR			
CLASSIFICATION	00105	TYPE III, CLASS 5, COLOR R, STYLE F, PER MIL-T-28800			
DIMENSIONS IN MM/INS	00110	178MM(7IN) X 165MM(6.5IN) X 105MM(4.12IN)			
WEIGHT IN KG/LBS	00120	9KG(20LBS)			
PWR SUPPLIES/CONSUMPTION	00140	50HZ, 60HZ, 400HZ 5-PHASE 115/230VAC			
TEMP OPER/NON-OPERATING	00210	-55C TO +75C STORAGE			
OUTPUT ATTENUATION	01600	80DB IN 10DB STEPS W/VERNIER CALIB IN 10B STEPS			
HARMONIC DISTORTION	19400	1PCT AT 1KHZ MAX			
FREQ RANGE	26500	100HZ TO 1.2MHZ			
INPUT FREQUENCY RESPONSE	26800	VARIATION NO GREATER THAN +/- 1DB OVER ANY FREQ RANGE			
OUTPUT IMPEDANCE	35200	600OHMS			
VOLTAGE INPUT	84900	2.5 VOLTS RMS (600OHMS)			



LR TECHNICAL DATA  
 Nomenclature  
 SIGNAL GENERATOR, VHF 450KHZ-512MHZ  
 ID NO 5223  
 ACCURACY (PCT) OR AS STATED

PARAMETER NAME  
 EQUIPMENT NAME  
 CLASSIFICATION  
 DIMENSIONS IN MM/INS  
 WEIGHT IN KG/LBS  
 ENCLOSURE STYLE  
 PWR SOURCE(S)/CONSUMPTION  
 TEMP OPERATING  
 AMP MOD-INT  
 AMP MOD-INT PERCENTAGE  
 AM INTERNAL DISTORTION  
 OUTPUT ATTENUATION  
 FM DEVIATION  
 FREQUENCY OUTPUT RANGE  
 OUTPUT FREQUENCY RESPONSE  
 OUTPUT IMPEDANCE  
 PULSE MOD (PM)-FM  
 PWR SC MOD INTERNAL  
 RF SENSITIVITY  
 RF VOLTAGE OUTPUT

PARAMETER CODE  
 00100  
 00105  
 00110  
 00120  
 00130  
 00140  
 00210  
 01600  
 01610  
 01640  
 03600  
 26020  
 26600  
 26800  
 35200  
 56000  
 56400  
 69000  
 85600

PARAMETER  
 SIGNAL GENERATOR (VHF) 1450KHZ - 512MHZ  
 TYPE III, CLASS S, COLOR R, STYLE E, PER MIL-T-28800  
 500MM(19.6875IN)X400MM(15.748IN)X470MM(18.5IN)  
 21KG(47LBS) MAX  
 STYLE E  
 50HZ, 60HZ, 400HZ S-PHASE 115/230VAC  
 -55C TO +75C  
 SELECTABLE BETWEEN 400HZ AND 1000HZ  
 AT LEAST 0 TO 90PCT AM-MOD BY BOTH EX/IM AUDIO TONE  
 ALL FREQ RANGES MAX DISTORTION OF 5  
 UP TO 1200KHZ 1000B VERNIER IN 100 STEPS  
 INTERNAL & EXTERNAL DEV CAPABILITY OF 0 TO 40KHZ RMS  
 450KHZ TO 512MHZ  
 OVER ANY FREQ BAND MAX DEVIATION  
 IMPEDANCE OUTPUT 50 OHMS  
 EX SIGNAL MOD CAPABILITY  
 PM 50 TO 5000PPS, W/PULSE WIDTH FROM 10 TO 40US  
 HARMONIC CONTENT LEVEL AT LEAST 30DB BELOW UNMOD CRR  
 VOLTAGE VARIABLE UP TO 1V RMS ACROSS 50 OHM LOAD

+/ -10 PCT  
 2 PCT  
 +/-0.2 DB  
 +/-0.5 PCT  
 +/-2 DB  
 +/-1 DB

LR TECHNICAL DATA  
 Nomenclature  
 SIGNAL GENERATOR, UHF 500MHZ-1.2GHZ  
 ID NO 5224  
 ACCURACY (PCT) OR AS STATED

PARAMETER NAME  
 EQUIPMENT NAME  
 CLASSIFICATION  
 DIMENSIONS IN MM/INS  
 WEIGHT IN KG/LBS  
 ENCLOSURE STYLE  
 PWR SOURCE(S)/CONSUMPTION  
 TEMP OPERATING  
 AMP MOD-INT  
 AMP MOD-INT PERCENTAGE  
 AM 500-PHOS MODULATION  
 OUTPUT ATTENUATION  
 FM INTERNAL DISTORTION  
 FM DEVIATION  
 FREQUENCY OUTPUT RANGE  
 OUTPUT FREQUENCY RESPONSE  
 IMPEDANCE  
 PULSE MOD (PM)-FM  
 PWR SC MOD INTERNAL  
 RF SENSITIVITY  
 RF VOLTAGE OUTPUT

PARAMETER CODE  
 00100  
 00105  
 00110  
 00120  
 00130  
 00140  
 00210  
 01200  
 01230  
 01600  
 01640  
 01650  
 03600  
 13600  
 26020  
 26600  
 26800  
 35400  
 35200  
 69000  
 85600

PARAMETER  
 SIGNAL GENERATOR (UHF) 1500MHZ - 1.2GHZ  
 TYPE III, CLASS S, COLOR R, STYLE E, PER MIL-T-28800  
 500MM(19.6875IN)X500MM(19.6875IN)X520MM(20.47IN)  
 27KG(60LBS) MAX  
 STYLE E  
 50HZ, 60HZ, 400HZ S-PHASE 115/230VAC  
 -55C TO +75C STORAGE  
 20HZ TO 20KHZ BY SINE & SO WAVE  
 0 TO AT LEAST 90PCT  
 SELECTIVE BETWEEN 400HZ TO 1000HZ  
 NOT TO EXCEED 2PCT  
 LESS THAN 5PCT AT FM DEVIATION OF 40KHZ  
 UP TO 1000B  
 LESS THAN 25HZ  
 3KHZ TO 300KHZ  
 500MHZ TO 1.6GHZ  
 NOT TO EXCEED FOR ANY FREQ BAND  
 600 OHMS  
 50 OHMS  
 300B BELOW LEVEL OF UNMODULATED CARRIER  
 0.5V RMS ACROSS 50 OHM LOAD

+/ -1 PCT  
 +/-2 DB  
 IN 5 RANGES



LR TECHNICAL DATA  
NOMENCLATURE  
FAMILY CODE  
TO MD  
5217  
ACCURACY (PCT)  
OR AS STATED

LR TECHNICAL DATA  
NOMENCLATURE  
FAMILY CODE  
TO MD  
5217  
ACCURACY (PCT)  
OR AS STATED

LR TECHNICAL DATA  
NOMENCLATURE  
FAMILY CODE  
TO MD  
5217  
ACCURACY (PCT)  
OR AS STATED

LR TECHNICAL DATA  
NOMENCLATURE  
FAMILY CODE  
TO MD  
5217  
ACCURACY (PCT)  
OR AS STATED

LR TECHNICAL DATA  
NOMENCLATURE  
FAMILY CODE  
TO MD  
5217  
ACCURACY (PCT)  
OR AS STATED

LR TECHNICAL DATA  
NOMENCLATURE  
FAMILY CODE  
TO MD  
5217  
ACCURACY (PCT)  
OR AS STATED

LR TECHNICAL DATA  
NOMENCLATURE  
FAMILY CODE  
TO MD  
5217  
ACCURACY (PCT)  
OR AS STATED

LR TECHNICAL DATA  
NOMENCLATURE  
FAMILY CODE  
TO MD  
5217  
ACCURACY (PCT)  
OR AS STATED

LR TECHNICAL DATA  
NOMENCLATURE  
FAMILY CODE  
TO MD  
5217  
ACCURACY (PCT)  
OR AS STATED

LR TECHNICAL DATA

100201041012

100201041012

PARAMETER NAME

00100 EQUIPMENT NAME

00105 CLASSIFICATION

00110 DIMENSIONS IN MM/INS

00120 WEIGHT IN KG/LBS

00130 FUNCTION (STYLE)

00140 PWR SUPPLY (S)/CONSUMPTION

00210 TEMP. AND RANGE/OPERATING

01300 THERMAL AND CAPABILITIES

10400 HARMONIC DISTORTION

26410 FREQ RANGE

26500 FREQ RANGE

26700 FREQ RANGE

34300 FREQ RANGE

56400 FREQ RANGE

68500 FREQ RANGE

85700 FREQ RANGE

PARAMETER

SIGNAL GENERATOR (2GHZ TO 18GHZ)

TYPE III, CLASS 5, COLOR R, STYLE I, PER MIL-I-20800

440MHZ(16.5IN)X275MHZ(10.5IN)X425MHZ(16.3IN)X

24.5KG(57LBS) MAX

STYLE E

50HZ, 60HZ, 400HZ, 5-PHASE 115/230VAC

-55C TO +75C STORAGE

FREQ. PULSE AND SO-WAVE MODULATION CAPABILITY

300B BELOW THE LEVEL OF UNMOD CARRIER

FREQ DEVIATION 0 TO 5MHZ P-P MIN

2GHZ TO 18GHZ

OUTPUT LEVEL VARIATION FOR ALL FREQ BANDS NO GREATER THAN

50 DBMS

40 TO 4000 PPS PULSE WIDTHS OF 1 TO 10US

VARIABLE FROM 40HZ TO 4000HZ

CONTINUOUSLY VARIABLE -100DBM TO 0DBM

IN 6 RANGES

+/-1 PCT

+/-1 DB

ACCURACY (PCT) OR AS STATED

D-13

LR TECHNICAL DATA

100201041012

100201041012

PARAMETER NAME

00100 EQUIPMENT NAME

00105 CLASSIFICATION

00110 DIMENSIONS IN MM/INS

00120 WEIGHT IN KG/LBS

00130 FUNCTION (STYLE)

00140 PWR SUPPLY (S)/CONSUMPTION

01600 OUTPUT ATTENUATION

15600 DC OUTPUT

15600 DC OUTPUT

26400 FREQ RANGE

26400 FREQ RANGE

35200 FREQ RANGE

50900 FREQ RANGE

86800 FREQ RANGE

PARAMETER

SIGNAL GENERATOR, FUNCTION

TYPE III, CLASS 5, COLOR R, STYLE I, PER MIL-I-20800

440MHZ(16.5IN)X160MHZ(6.3IN)X400MHZ(15.7IN)X

9KG(20LBS)

STYLE E

50HZ, 60HZ, 400HZ, 5-PHASE 115/230VAC

500B RANGE ADDITIONAL 100B VERNIER CALIBRATED IN 10B STEPS

CONT. ADJ FROM -10VDC TO +10VDC

0.1HZ TO 10MHZ

VARIATIONS NO GREATER THAN +/-10B AT ANY FREQ BAND

500HMS

10V P/P ACROSS 500HMS

SELECTABLE -SINE, SQUARE, SAWTOOTH, TRIANGLE AND PULSE WAVEF

IN 10 BANDS

+/-5 PCT

ACCURACY (PCT) OR AS STATED

LR TECHNICAL DATA

LETTER REQUIREMENT (LR)

10020140004

PARAMETER NAME

PARAMETER CODE

00100

00105

00110

00120

00140

00210

15200

56010

56200

56430

85600

EQUIPMENT NAME

CLASSIFICATION

REQUIREMENTS IN MHz/MS

WEIGHT IN KG/LBS

PWR SUPPLY/CONSUMPTION

TEMP OPER/MON-OPERATING

OUTPUT IMPEDANCE

PULSE WIDTH

PULSE RATE

PULSE MOD, TRANS TIME

OF VOLTAGE OUTPUT

FAMILY CODE

050

SIGNAL GENERATOR-PULSE

PARAMETER

SIGNAL GENERATOR-PULSE

TYPE III, CLASS S, COLOR R, STYLE F, PER MIL-T-28000

440MHZ/100MHZ/100MHZ/6.5MHZ/360MHZ/13.5MHZ

70G/15.5LBS

50HZ/60HZ/400HZ S-PHASE 115/230VAC

-55C TO +75C STORAGE

500MS

VARIABLE FROM 10NS TO 1SEC

10 TO 10MILLION PPS

5 MANDSECONDS

VARIABLE W/MINIMUM OF 3V INTO 50 OHM LOAD

IN 6 RANGES

ACCURACY (PCT)

UR AS STATED

5215

+/-0.002PCT

0.005 PCT

+/-0.5DB

LR TECHNICAL DATA

LETTER REQUIREMENT (LR)

100201400070

PARAMETER NAME

PARAMETER CODE

00100

00105

00110

00120

00130

00140

00210

19400

26500

26700

35200

69600

70400

72010

73200

EQUIPMENT NAME

CLASSIFICATION

REQUIREMENTS IN MHz/MS

WEIGHT IN KG/LBS

PWR SUPPLY/CONSUMPTION

TEMP OPER/MON-OPERATING

HARMONIC DISTORTION

FREQ RANGE

FREQ OUTPUT LEVEL STABIL

OUTPUT IMPEDANCE

STAMPING WAVE RATIO SWR

FUNCTIONS

SWEEP INPUT VOLTAGE

SWEEP RATE

FAMILY CODE

052

SIGNAL GENERATOR-SWEEP 100KHZ-110MHZ

PARAMETER

SIGNAL GENERATOR, SWEEP (100KHZ - 110MHZ)

TYPE III, CLASS S, COLOR R, STYLE F, PER MIL-T-28000

470MHZ/100MHZ/235MHZ/91MHZ/520MHZ/201MHZ

24KG/13LBS

STYLE E

50HZ/60HZ/400HZ S-PHASE 115/230VAC

-55C TO +75C STORAGE

250M BELOW FUNDAMENTAL

100KHZ TO 110MHZ

OUTPUT LEVEL VAR FOR ALL FREQ BANDS NO GREATER THAN

50 OHMS

LESS THAN 1.5 TO 1

SELECTABLE CM, DELTA-F, MARKER & START/STOP

MINIMUM OF 1V RMS ACROSS 50 OHMS

ADJUSTABLE FROM 1MS TO 60SEC

IN 6 RANGES

ACCURACY (PCT)

UR AS STATED

5220

+/-1 PCT

+/-1 DB

+/-1 DB

LETTER REQUIREMENT(1)		LR TECHNICAL DATA		ID NO
PARAMETER NAME	PARAMETER CODE	NOMENCLATURE	FAMILY CODE	
198201P50922		SIGNAL GENERATOR, SWEEP 10MHZ-1.0GHZ	109	5221
PARAMETER NAME	PARAMETER CODE	PARAMETER		ACCURACY (PCT) OR AS STATED
EQUIPMENT NAME	00100	SIGNAL GENERATOR, SWEEP (10MHZ - 1.0GHZ)		
CLASSIFICATION	00105	TYPE III, CLASS 5, COLOR R, STYLE E, PER MIL-T-28000		
DIMENSIONS IN MM/INS	00110	470MM(18IN)WX235MM(9IN)HX510MM(20IN)D		
WEIGHT IN KG/LBS	00120	14KG(31LBS) MAX		
ENCLOSURE (STYLE)	00130	STYLE E		
POW SOURCE(S)/CONSUMPTION	00140	50HZ, 60HZ, 400HZ 5-PHASE 115/230VAC		
TEMP OPER/NOIN-OPERATING	00210	-55C TO +75C STORAGE		
HARMONIC DISTORTION	19400	30DB BELOW FUNDAMENTAL		
FREQ, WAVE OUTPUT RANGE	26600	10MHZ TO 1.0GHZ		
OUTPUT FREQUENCY RESPONSE	26800	OUTPUT LEVEL RESPONSE FOR ALL FQ BANDS NO GREATER THAN		
OUTPUT IMPEDANCE	35200	50 OHMS		
STANDING WAVE RATIO SWR	69600	LESS THAN 1.5 TO 1		
FUNCTIONS	70400	SELECTABLE CW, DELTA-F, MARKER & START/STOP		
SWEEP OUTPUT VOLTAGE	72810	MINIMUM OF 0.5V RMS ACROSS 50 OHMS		
SWEEP RATE	73200	ADJUSTABLE FROM 1MS TO 60SEC PER SWEEP		

D-15

LR TECHNICAL DATA		FAMILY CODE	ID NO
NOMENCLATURE	PARAMETER		
SIGNAL GENERATOR, SWEEP 1.0GHZ-40.0GHZ	049	5222	
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
EQUIPMENT NAME	00100	SIGNAL GENERATOR • SWEEP (1.0GHZ - 40.0GHZ)	
CLASSIFICATION	00105	TYPE III, CLASS 5, COLOR R, STYLE E, PER MIL-T-28000	
DIMENSIONS IN MM/INS	00110	470MM(18IN)WX285MM(11IN)HX500MM(19IN)D	
WEIGHT IN KG/LBS	00120	29KG(64LBS) MAX	
ENCLOSURE (STYLE)	00130	STYLE E	
POW SOURCE(S)/CONSUMPTION	00140	50HZ, 60HZ, 400HZ 5-PHASE 115/230VAC	
TEMP OPER/NOIN-OPERATING	00210	-55C TO +75C STORAGE	
HARMONIC DISTORTION	19400	25DB BELOW FUNDAMENTAL	
FREQ, WAVE OUTPUT RANGE	26600	1GHZ TO 40GHZ	
OUTPUT FREQUENCY RESPONSE	26800	OUTPUT LEVEL VARIATION FOR ALL FQ BANDS NO GREATER THAN	
OUTPUT IMPEDANCE	35200	50 OHMS	
STANDING WAVE RATIO SWR	69600	LESS THAN 2 TO 1	
FUNCTIONS	70400	SELECTABLE CW, DELTA-F, MARKER & START/STOP	
SWEEP OUTPUT VOLTAGE	72810	MINIMUM OF 0.5V RMS ACROSS 50 OHMS	
SWEEP RATE	73200	ADJUSTABLE FROM 1MS TO 100SEC PER SWEEP	
		IN 6 RANGES	+/ -1 PCT
			+/ -1 DB
			+/ -1 DB

LETTER REFIDPT(MEMTLIR)	LR TECHNICAL DATA	FAMILY CODE	ID NO	ACCURACY (PCT) OR AS STATED
	NOMENCLATURE			
	TEST SET, SEMICONDUCTOR	045	5226	
PARAMETER NAME	PARAMETER			
EQUIPMENT NAME	TEST SET, SEMICONDUCTOR			
CLASSIFICATION	TYPE III, CLASS 5, COLOR R, STYLE E, PER MIL-T-20800			
COMPOSITIONS IN MMINS	DRUMH151NHWZ03NM(BIN)HXZ0JMMI61ND			
WEIGHT IN KG/LRS	3KG(6-.6LRS) MAX			
THERMAL SIZE(S) (STYLE)	STYLE E			
PUMP SUPPLY(S)/CONSUMPTION	50HZ+.60HZ+400HZ S-PHASE 115/230VAC			
TEMP OPER/MON-OPERATING	-55C TO +75C STORAGE			
IN-CIRCUIT TEST PARAMETER	IN-CKT TEST OF FIELD EFFECT & BI-POLAR TRANSISTORS			
DIMENSIONAL CHAP	1 - 1000(PRETAI)			
TRANS CONDUCTANCE	FET TRANSCONDUCTANCE: 0.5 TO 100MHMS			
TEMP-BIAS DRAIN CURRENT @	ZERO-BIAS DRAIN: FROM SUA TO 5MA			
				+/-.5 PCT
				+/-.5 PCT
				+/-.5 PCT

LR TECHNICAL DATA		LR REQUIREMENT(LR)		LR TECHNICAL DATA		LR REQUIREMENT(LR)	
PARAMETER NAME	PARAMETER CODE	NOMENCLATURE	DIGITAL VOLTMETER	PARAMETER NAME	PARAMETER CODE	NOMENCLATURE	DIGITAL VOLTMETER
TEMPERATURE NAME	00100	VOLTMETER-DIGITAL		TEMPERATURE NAME	00100	VOLTMETER-DIGITAL	
CLASSIFICATION	00105	TYPE III, CLASS 5, COLOR R, STYLE F, PER MIL-T-28000		CLASSIFICATION	00105	TYPE III, CLASS 5, COLOR R, STYLE F, PER MIL-T-28000	
WEIGHT IN MM/INS	00110	500MHZ/90MIN/150MHZ/5.31IN/485MM/18.4IN/10		WEIGHT IN MM/INS	00110	500MHZ/90MIN/150MHZ/5.31IN/485MM/18.4IN/10	
WEIGHT IN KG/LBS	00120	9.5KG/21LBS		WEIGHT IN KG/LBS	00120	9.5KG/21LBS	
POWER CONSUMPTION	00140	50HZ/60HZ/400HZ 5-PHASE 115/230VAC		POWER CONSUMPTION	00140	50HZ/60HZ/400HZ 5-PHASE 115/230VAC	
REARVIEW MIRROR(S)	00160	DIGITAL READOUT 5 1/2 DIGITS		REARVIEW MIRROR(S)	00160	DIGITAL READOUT 5 1/2 DIGITS	
TEMPERATURE RANGE	26700	50HZ TO 20KHZ		TEMPERATURE RANGE	26700	50HZ TO 20KHZ	
MODE OF OPERATION	47400	MANUAL AND AUTORANGE SELECTION		MODE OF OPERATION	47400	MANUAL AND AUTORANGE SELECTION	
RESISTANCE MEASUREMENT	59600	100OHMS TO 10MEG OHMS		RESISTANCE MEASUREMENT	59600	100OHMS TO 10MEG OHMS	
VOLTAGE AC	84000	1MV TO 1000VAC		VOLTAGE AC	84000	1MV TO 1000VAC	
VOLTAGE AC INPUT IMPEDANCE	84110	1MEG OHMS		VOLTAGE AC INPUT IMPEDANCE	84110	1MEG OHMS	
VOLTAGE DC	84400	1MV TO 1000VDC		VOLTAGE DC	84400	1MV TO 1000VDC	
VOLTAGE DC INPUT IMPEDANCE	84420	10MEG OHMS		VOLTAGE DC INPUT IMPEDANCE	84420	10MEG OHMS	

LITER REQUIREMENT(S)		LR TECHNICAL DATA		FAMILY CODE	ID NO
PARAMETER NAME	PARAMETER CODE	NOMENCLATURE	MULTIFUNCTION RF VOLT-METER		
100201077040				079	5211
PARAMETER NAME	PARAMETER CODE	PARAMETER			ACCURACY (PCT) OR AS STATED
EQUIPMENT NAME	00100	MULTIFUNCTION RF VOLT-METER			
CLASSIFICATION	00105	TYPE III-CLASS S, COLOR R, STYLE E, PER MIL-T-20800			
DIMENSIONS IN MM/INS	00110	220MM(8.5IN)X170MM(6.5IN)X300MM(11.5IN)D			
WEIGHT IN KG/LBS	00120	5.5KG(12LBS)			
PWR SOURCE(S)/CONSUMPTION	00140	50HZ, 60HZ, 400HZ S-PHASE 115/230VAC			
READING METHOD(S)	00160				
TEST LEAD/PROBES	00190	DETACHABLE TEST LEAD AND/OR PROBE			
TEMP OPER/MON-OPERATING	00210	-55C TO +75C STORAGE			
CURRENT DC	14000	15UA TO 150MA			
FREQ RESPONSE	26900	10KHZ TO 1.2GKHZ			+/-3 PCT
RESISTANCE MEASUREMENT	59600	0.2OHMS TO 500MEG OHMS			
VOLTAGE AC	84000	1MV TO 3VAC, +/-1PCT AT 10KHZ-150MHZ, +/-3PCT-700MHZ, 1.2G			+/-10 PCT
VOLTAGE DC	84400	15MV TO 1500V			+/-1 PCT

LITER REQUIREMENT(S)		LR TECHNICAL DATA		FAMILY CODE	ID NO
PARAMETER NAME	PARAMETER CODE	NOMENCLATURE	CABLE TEST SET		
100201077040				009	5227

PARAMETER NAME		PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
EQUIPMENT NAME	00100	CABLE TEST SET		
CLASSIFICATION	00105	TYPE III-CLASS S-COLOR R-STYLE PER MIL-T-20800		
DIMENSIONS IN MM/INS	00110	180MM(7IN)X130MM(5IN)X117.2MM(4.5IN)D		
WEIGHT IN KG/LBS	00120	9KG(19.8LBS)		
PWR SOURCE(S)/CONSUMPTION	00140	50,60 & 400HZ 5-PHASE 115/230VAC		
TEMP	00150	1500 HOURS		
TEMP OP/ MIN-OPERATING	00210	CRT HORIZ AXIS IN UNITS/VERT AXIS TO SIG AMPL. +/-5 TO-15UR		+/-0.01 DB
AMPLITUDE MEASUREMENT	00500	7-55 TO 75 DEG C		
CABLE MEASUREMENT	00100	REFLECTED AMPLITUDE, OVER 60DB IN 100R STEPS		+/-3 PCT
SELECTABLE SCALES	00200	0 TO 50,000 FT		+/-3 PCT
IMPEDANCE INPUT/OUTPUT	34500	SELECTABLE .5FT/DIV TO 50FT/DIV BY 10X100 HORIZ SCALES		
REC'D COPY OUTPUT	58400	FIXED SCALES .66E-01VP/VAIR-1 VAR FROM .35 TO 1 VP/VAIR		+/-3 PCT
TEST PULSE CHAR	76400	50, 75, 93 & 125 OHMS RESISTIVE		+/-1 PCT
TEST PULSE AMPLITUDE	76500	HARD COPY OUTPUT FOR PERMANENT RECORD		
		SELECTABLE .10NSEC TO 10SEC		
		25V MAXIMUM		



LR TECHNICAL DATA  
 MODULATION METER  
 MODULATION METER  
 FAMILY CODE 031  
 ID NO 5233  
 ACCURACY (PCT) OR AS STATED  
 MODULATION METER

PARAMETER NAME  
 EQUIPMENT NAME  
 CLASSIFICATION  
 DIMENSIONS IN MM/INS  
 WEIGHT IN KG/LBS  
 PWR SUPPLY/CONSUMPTION  
 TEMP OPER/NOH-OPERATING  
 AM FREQ RANGE  
 AMPLITUDE MODULATION  
 AM INTERNAL DISTORTION  
 FM INTERNAL DISTORTION  
 FM DEVIATION  
 FREQ RANGE  
 INPUT POWER INPUT  
 INPUT VOLTAGE RANGE  
 PARAMETER CODE  
 00100  
 00105  
 00110  
 00120  
 00140  
 00210  
 01100  
 01200  
 01640  
 19600  
 26020  
 26500  
 36400  
 37600  
 MODULATION METER  
 TYPE III, CLASS 5, COLOR R, STYLE 1, PER MIL-T-28000  
 482.6MM(19IN)X330MM(13IN)X457MM(18IN)  
 14.52KG(32LBS)  
 50.60 & 400HZ S-PHASE 115/230VAC  
 7-55 TO 75 DEG C  
 4MHZ TO 400MHZ  
 30HZ TO 50KHZ W/UP TO 95 PCT MODULATION  
 AM DISTORTION LESS THAN  
 FM DISTORTION LESS THAN  
 FM DEVIATION, 30HZ TO 500KHZ  
 2MHZ TO 1GHZ  
 50 OHMS  
 20W TO 3V RMS

+/-5 PCT  
 2 PCT  
 3 PCT  
 +/-10 PCT

LR TECHNICAL DATA  
 MODULATION METER  
 MODULATION METER  
 FAMILY CODE 020  
 ID NO 5230  
 ACCURACY (PCT) OR AS STATED  
 MODULATION METER

PARAMETER NAME  
 EQUIPMENT NAME  
 CLASSIFICATION  
 DIMENSIONS IN MM/INS  
 WEIGHT IN KG/LBS  
 PWR SUPPLY/CONSUMPTION  
 TEMP OPER/NOH-OPERATING  
 FREQ RANGE  
 VIBRATING REED  
 VIBRATING REED  
 PARAMETER CODE  
 00100  
 00105  
 00110  
 00120  
 00140  
 00210  
 26500  
 H2900  
 H4000  
 FREQUENCY METER  
 TYPE III, CLASS 5, COLOR R, STYLE 1, PER MIL-T-28000  
 102MM(4IN)X152MM(6IN)X127MM(5IN)  
 2.04KG(4.5LBS)  
 OBTAINED FROM EQUIPMENT UNDER TEST/0.5W  
 7-55 TO 70 DEG C  
 AC LINES, 45 TO 65HZ, OR 380 TO 420HZ  
 VIBRATING REED PRINCIPLE, MINIMUM 20 REEDS  
 100 TO 250VAC

+/-0.5 PCT

LR TECHNICAL DATA		FAMILY CODE		ID NO
NOMENCLATURE		025		5231
INSULATION TEST SET				
PARAMETER NAME	PARAMETER CODE	ACCURACY (PCT) UR AS STATED		
EQUIPMENT NAME	00100			
CLASSIFICATION	00105			
DIMENSIONS IN MM/INS	00110			
WEIGHT IN KG/LBS	00120			
PMR SOURCE TEST/CONSUMPTION	00140			
TEMP OPER/MON-OPERATING	00150			
PHYS RANGE	00190			
RESISTANCE MEASUREMENT	00210			
	50600			
		IN 8 RANGES		
		*/-3 PCT */-5 PCT		

LR TECHNICAL DATA		FAMILY CODE		ID NO
NOMENCLATURE		029		5232
MEG OHMMETER				
PARAMETER NAME	PARAMETER CODE	ACCURACY (PCT) UR AS STATED		
EQUIPMENT NAME	00100			
CLASSIFICATION	00105			
DIMENSIONS IN MM/INS	00110			
WEIGHT IN KG/LBS	00120			
PMR SOURCE TEST/CONSUMPTION	00140			
TEMP OPER/MON-OPERATING	00150			
PHYS RANGE	00190			
RESISTANCE MEASUREMENT	00210			
	50600			
		IN 8 RANGES		
		*/-3 PCT */-5 PCT		

LR TECHNICAL DATA			
LETTER REQUIREMENT(PLP)	NOMENCLATURE	FAMILY CODE	ID NO
10H30LR30014	PATTERN GENERATOR	067	5234
			ACCURACY (PCT) OR AS STATED
PARAMETER NAME	PARAMETER CODE	PARAMETER	
EQUIPMENT NAME	00100	PATTERN GENERATOR	
CLASSIFICATION	00101	CONT-MARK/SPACE OR ALT-EFOX MSG 5 LCV BAUDOT/8 LCV ASCII	
DIMENSIONS IN MM/INS	00105	TYPE III, CLASS 5, COLOR R, STYLE E, PER MIL-T-28800	
WEIGHT IN KG/LBS	00110	105MM(4IN)X15MM(12IN)X105MM(4IN)	
SECONDARY PWR SUPPLY	00120	2.3KG(5LBS)	
TEMP OPER/NON-OPERATING	00145	SELF CONTAINED RECHARGEABLE BATTERIES	
MTT-RATE	00210	7-55 TO 75 DEG C	
CURRENT OUTPUT LEVEL	07600	45,47,2,110(150 BITS/SEC SELECTABLE	
DISTORTION TRANSMISSION	14900	HIGH LCV 20/60MA NEUTRAL LOOP-LOW LCV 1AM MIL-STD100-114	
PARITY, INPUT SIGNAL	51200	DISTORTION OUTPUT LEVELS, 0 TO 37.5PCT, IN 12PCT INCREMENT	+/-3 PCT
		INT SELECTABLE, NONE, ODD OR EVEN PARITY	
LR TECHNICAL DATA			
LETTER REQUIREMENT(PLP)	NOMENCLATURE	FAMILY CODE	ID NO
10H30LR320	DECADE RESISTOR	201	5228
			ACCURACY (PCT) OR AS STATED
PARAMETER NAME	PARAMETER CODE	PARAMETER	
EQUIPMENT NAME	00100	DECADE RESISTOR	
CLASSIFICATION	00105	TYPE III, CLASS 5, COLOR R, STYLE E, PER MIL-T-28800	
DIMENSIONS IN MM/INS	00110	127MM(5IN)X76.2MM(3IN)X304.8MM(12IN)	
WEIGHT IN KG/LBS	00120	3.2KG(7LBS)	
PWR SUPPLY (S)/CONSUMPTION	00140	NONE	
TEMP OPER/NON-OPERATING	00210	1-55 TO 75 DEG C	
DISTANCE MEASUREMENT	50600	0 TO 11.11KOHMS	+/-2 PCT

LR TECHNICAL DATA

LEFTER REQUIREMENT(1)  
10M10LRS3066

PARAMETER NAME  
EQUIPMENT NAME  
CLASSIFICATION  
DIMENSIONS IN MM/INS  
WEIGHT IN KG/LBS  
PWR SUPPLIES/CONSUMPTION  
PEAKING METHOD(S)  
TEMP. OP/ENV/OP-OPERATING  
AMPLITUDE MEASUREMENT  
ATTENUATION  
FREQ. RANGE  
IMPEDANCE INPUT  
RESOLUTION  
STABILITY WARM UP TIME

PARAMETER CODE  
00100  
00105  
00110  
00120  
00140  
00160  
00210  
00500  
02600  
26500  
34400  
60000  
69270

NOMENCLATURE  
SPECTRUM ANALYZER, 10MHZ TO 40GHZ

FAMILY CODE  
062

ID NO  
5237

ACCURACY (PCT)  
OR AS STATED

PARAMETER  
SPECTRUM ANALYZER  
TYPE 111-CLASS S-COLOR-STYLE E, PER MIL-T-28800  
482.6MM(19IN)X355.6MM(14IN)X482.6MM(19IN)D  
27.2KG(60LBS)  
50.60 & 400HZ S-PHASE 115/230VAC  
CRT  
-55 TO 75 DEG C  
-100 TO +200MM, 1000MM/0.2GHZ, 900MM/18GHZ, 70/40GHZ LOG/LIM  
IF ATTENUATOR, 51DB IN 1DB STEPS  
10MHZ TO 40GHZ, 1PCT +/-10MHZ OF INDICATED VALUE  
50 DBMS  
1MHZ TO 100KHZ  
+/-200KHZ AFTER 1 MINUTE

100/6PCT

LR TECHNICAL DATA

LEFTER REQUIREMENT(1)  
10M10LRS4066

PARAMETER NAME  
EQUIPMENT NAME  
CLASSIFICATION  
DIMENSIONS IN MM/INS  
WEIGHT IN KG/LBS  
PWR SUPPLIES/CONSUMPTION  
PEAKING METHOD(S)  
TEMP. OP/ENV/OP-OPERATING  
AMPLITUDE MEASUREMENT  
ATTENUATION  
FREQ. RANGE  
IMPEDANCE INPUT  
RESOLUTION  
STABILITY WARM UP TIME

PARAMETER CODE  
00100  
00105  
00110  
00120  
00140  
00160  
19400  
26500  
60000  
73200  
73600

NOMENCLATURE  
SPECTRUM ANALYZER, 4KHZ TO 9.1MHZ

FAMILY CODE  
060

ID NO  
5236

ACCURACY (PCT)  
OR AS STATED

PARAMETER  
SPECTRUM ANALYZER  
TYPE 111-CLASS S-COLOR R, STYLE E, PER MIL-T-28800  
482.6MM(19IN)X355.6MM(14IN)X482.6MM(19IN)D  
12.7KG(28LBS)  
50.60 & 400HZ S-PHASE 115/230VAC  
CRT W/-20 TO +100DB W/ODR REF LEVEL  
-55 TO 75 DEG C  
50DB MINIMUM  
4KHZ TO 9.1MHZ  
60,150 & 1500/1ST, 2ND & 3RD SWEEP  
LESS THAN 1 SWEEP PER SECOND  
SELECTABLE, 0-3.1KHZ, 10KHZ TO 12KHZ AT LEAST 100/300KHZ

+/-1 PCT

LR TECHNICAL DATA

FAMILY CODE 061

ID NO 5246

ACCURACY (PCT) OR AS STATED

LR TECHNICAL DATA

FAMILY CODE 075

ID NO 5235

ACCURACY (PCT) OR AS STATED

LR TECHNICAL DATA

FAMILY CODE 075

ID NO 5235

ACCURACY (PCT) OR AS STATED

LR TECHNICAL DATA

FAMILY CODE 075

ID NO 5235

ACCURACY (PCT) OR AS STATED

LR TECHNICAL DATA		FAMILY CODE	
ITEM NO	DESCRIPTION	ITEM NO	DESCRIPTION
00100	EQUIPMENT NAME	00100	TELETYPE TEST SET
00101	FUNCTION	00101	GENERIC MARK/SPACE/FOX MSG, 5 LFD, HANDOUT/0LEV, ASCI/
00105	CLASSIFICATION	00105	TYPE III, CLASS 5, COLOR R, STYLE E, PLR MIL-T-28800
00110	DIMENSIONS IN MM/INS	00110	442-AMH191N1M1X315MH121N1H1X470MH1181N1D
00120	WEIGHT IN KG/LBS	00120	18KG/40LBS
00140	PWR CONSUMPTION/CONSUMPTION	00140	50-60 E 400HZ 5-PHASE 115/230VAC
00210	TEMP OPERATING	00210	7-55 TO 75 DEG C
00400	AUX OUTPUT	00400	AUX OUTPUT TO MONITOR GEN & ANAL HAVEFORMS W/SCOPE
07200	BIT ERROR COUNT	07200	COUNTED/5PLAY BIT ERRORS
07400	BIT RATE	07400	37.5, 45, 57.2, 50, 75, 110, 150, 300, 600, 1200, 2400, 4800, 9600
19500	DISTRIBUTION TRANSMISSION	19500	0 TO 49PCT IN 1PCT INCREMENTS
20000	DISTRIBUTION MEASUREMENTS	20000	0 TO 50PCT FOR MARK/SPACE, END DISTRIBUTION/PEAK DISTORTI
37000	INPUT SIGNAL MEASUREMENTS	37000	MARK/SPACE/2047-BIT PSEUDO PTRN, FOX MSG/5LEV OR BLEVEL
37100	INPUT BIT RATE	37100	37.5, 45, 57.2, 50, 75, 110, 150, 300, 600, 1200, 2400, 4800, 9600
50000	SIGNAL HANDOFFS	50000	MARK/SPACE/2047 BIT PSEUDO PATTERN, 1-6 SEC/5.6, 7.8 LEV
51200	PARITY OUTPUT SIGNAL	51200	0 LEVEL/ASCII SEL RTN-000, EVEN OR INHIBITED PARITY
51300	PARITY INPUT SIGNAL	51300	AT LEAST 2 METHODS TO DETERMINE PARITY ERROR
65600	SIGNAL LEVEL OUTPUT	65600	SELECTABLE HI-LEV POLAR/NEUTRAL, FULL SYS HUB/0 LEV LOG
77600	TIME CONTROL	77600	EXT 0/-6VDC TIME SOURCE FOR GEN & ANALYZER

LR TECHNICAL DATA		FAMILY CODE	
ITEM NO	DESCRIPTION	ITEM NO	DESCRIPTION
00100	EQUIPMENT NAME	00100	TEMPERATURE INDICATOR
00105	CLASSIFICATION	00105	TYPE III, CLASS 5, COLOR R, STYLE E, PLR MIL-T-28800
00110	DIMENSIONS IN MM/INS	00110	228-6191N1M1X127M151N1H1X203.2MH181N1D
00120	WEIGHT IN KG/LBS	00120	1KG/2.2LBS
00140	PWR CONSUMPTION/CONSUMPTION	00140	NON/DR RECHARGEABLE BATTERIES, 24CONT, HRS/8HRS
00150	MTBF	00150	4500 HOURS
00210	TEMP OPERATING	00210	7-55 TO 75 DEG C
75210	TEMPERATURE RANGE	75210	-55 TO 130 DEG
75270	TEMPERATURE, PRIOR TIME CO	75270	REACH 63.2PCT OF TEMP MEASURED WITHIN 10SEC/STABLE BY 60

LR TECHNICAL DATA  
 NOMENCLATURE  
 TRANSMISSION TEST SET (TELEPHONE)  
 FAMILY CODE 071  
 ID NO 5240  
 ACCURACY (PCT) OR AS STATED

PARAMETER CODE  
 TRANSMISSION TEST SET  
 TYPE III-CLASS 5-COLOR R-SYLL L-PLR MIL-T-28800  
 400MHZ/100MHZ/20MHZ/10MHZ/5MHZ/1MHZ  
 13-6KG/30LBS  
 50-60 & 400HZ S-PHASE 115/230VAC  
 AC METER, IN ABSOLUTE VOLTS, DR/INW AT 600EDB REF 1PM DRWN  
 7-55 TO 75 DEG C  
 110 DB RANGE IN 10 & 10B STEPS, +/-2 & .02DB RESPECTIVE  
 400B BELOW FUNDAMENTAL FREQ  
 5HZ TO 560KHZ  
 5HZ TO 560KHZ  
 75, 135, 150, 600, & 900 OHMS AND HI-BRIDGING CAPABILITY  
 -95DBM TO +52DBM IN 10 DBM STEPS  
 BALANCED W/RESPECT TO GND  
 400B  
 3KHZ FLAT, C-MSG, 15KHZ FLAT & 50KHZ  
 65DB BELOW LEVEL OF FUNDAMENTAL FREQ  
 AT LEAST 5VAC TO OPEN CRT, 62.5VAC INTO 600 OHM LOAD  
 +/-2 PCT  
 +/-2 PCT  
 +/-0.02DB

LR TECHNICAL DATA  
 NOMENCLATURE  
 DIFFERENTIAL VOLTMETER  
 FAMILY CODE 121  
 ID NO 5229  
 ACCURACY (PCT) OR AS STATED

PARAMETER CODE  
 DIFFERENTIAL VOLTMETER  
 TYPE III-CLASS 5-COLOR R-SYLL L-PLR MIL-T-28800  
 260MHZ/100MHZ/25MHZ/10MHZ/5MHZ/1MHZ/405  
 6.5KG/21LBS  
 50-60, & 400HZ S-PHASE 115/230VAC  
 7-55 TO 75 DEG C  
 50Z TO 5KHZ  
 10 MFC/10M DC, 1 MFC/10M AC  
 100MV MIN FOR DCV, 1MV MIN FOR ACV  
 1MV TO 1000VAC  
 100MV TO 1000VDC  
 IN 8 RANGES  
 IN 8 RANGES  
 +/-0.2 PCT  
 +/-0.02 PCT

LR TECHNICAL DATA  
 NOMENCLATURE  
 TRUE RMS VOLTMETER & DB METER  
 FAMILY CODE 080  
 ID NO 5241  
 ACCURACY (PCT) OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
EQUIPMENT NAME	00100	TRUE RMS VOLTMETER AND DB METER
CLASSIFICATION	00105	TYPE III, CLASS S, COLOR R, STYLE E, PER MIL-I-28800
DIMENSIONS IN MM/INS	00110	225MM(8.85IN)X170MM(6.69IN)X325MM(12.79IN)
WEIGHT IN KG/LBS	00120	4.5KG(10LBS)
PMW SUPPLIES/CONSUMPTION	00140	50-60 & 400HZ S-PHASE 115/230VAC
TEMP OPER/MIN-OPERATING	00160	CALIB METER IN RMS & DB REF TO 1MHZ/600 OHMS
DR L VIL MEAS	00210	-75 TO +75 DEG C
ESD RESPONSE	16900	10HZ TO 10MHZ
OUTPUT	58400	OUTPUT VOLTAGE 1V MAX
VOLTAGE AC INPUT IMPEDANCE	84110	2 MEGOHM SHUNTED BY LESS THAN 25PF
VOLTAGE TRUE RMS	84400	300V TO 1000VAC

+/-3 PCT  
 +/-3 PCT

LR TECHNICAL DATA  
 NOMENCLATURE  
 VECTOR VOLTMETER  
 FAMILY CODE 074  
 ID NO 5242  
 ACCURACY (PCT) OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
EQUIPMENT NAME	00100	VECTOR VOLTMETER
CLASSIFICATION	00105	TYPE III, CLASS S, COLOR R, STYLE E, PER MIL-I-28800
DIMENSIONS IN MM/INS	00110	431.8MM(17.0IN)X177.8MM(7.0IN)X482.6MM(19.0IN)
WEIGHT IN KG/LBS	00120	18.14KG(40LBS)
PMW SUPPLIES/CONSUMPTION	00140	50-60 & 400HZ S-PHASE 115/230VAC
TEMP OPER/MIN-OPERATING	00210	-75 TO 75 DEG C
CHANNEL ISOLATION	10000	ISOLATION, 70DB
REF RANGE	26500	1.5MHZ TO 1.5MHZ
IF OUTPUT	31200	20KHZ
IF AMPLITUDE	31210	+/-10KHZ ABOUT CENTER FREQ
INPUT LEVEL MEASUREMENT	16900	-70DBM TO +100DBM, 1MV/600 OHMS
INPUT VOLTAGE RANGE	31600	2VAC PEAK
PHASE MEASUREMENT	52900	-180 TO +180 DEGREES, W/4 PHASE ANGLES, +180, 60, +180, 6 DEG

+/-0.308  
 +/-1.5 DEG



LR TECHNICAL DATA  
 NOMINCLATURE  
 WATTMETER, (10KW)  
 FAMILY CODE  
 082  
 ID NO  
 5244  
 ACCURACY (PCT)  
 OR AS STATED

PARAMETER NAME  
 EQUIPMENT NAME  
 CLASSIFICATION  
 DIMENSIONS IN MM/INS  
 WEIGHT IN KG/LBS  
 PWR SUPPLY (S)/CONSUMPTION  
 TEMP OPER/NOON-OPERATING  
 FOL RANGE  
 IMPEDANCE, INPUT  
 POWER RANGE  
 INSULATION VSWR  
 REFLECTED POWER  
 VOLTAGE STANDING WAVE RAT

PARAMETER CODE  
 00100  
 00105  
 00110  
 00120  
 00140  
 00210  
 26500  
 34400  
 56800  
 56840  
 56850  
 86500

PARAMETER  
 WATTMETER  
 TYPE III, CLASS S, COLOR R, STYLE E, PER MIL-T-20800  
 203.3MM(8IN)X152.4MM(6IN)X203.2MM(8IN)D  
 3.63KG/8LBS  
 PROVIDED BY EQUIPMENT UNDER TEST  
 7-55 TO 75 DEG C  
 2MHZ TO 2.3GHZ  
 50 OHMS  
 1W TO 10KW  
 LESS THAN 1.1 TO 1  
 100MW TO 1KW MAX  
 1.0 TO 1 TO 2.0 TO 1

0/-5 PCT

LR TECHNICAL DATA  
 NOMINCLATURE  
 WATTMETER, (500W)  
 FAMILY CODE  
 040  
 ID NO  
 5243  
 ACCURACY (PCT)  
 OR AS STATED

PARAMETER NAME  
 EQUIPMENT NAME  
 CLASSIFICATION  
 DIMENSIONS IN MM/INS  
 WEIGHT IN KG/LBS  
 PWR SUPPLY (S)/CONSUMPTION  
 TEMP OPER/NOON-OPERATING  
 FOL RANGE  
 IMPEDANCE, INPUT  
 POWER RANGE  
 INSULATION VSWR

PARAMETER CODE  
 00100  
 00105  
 00110  
 00120  
 00140  
 00210  
 26500  
 34400  
 56800  
 56840

PARAMETER  
 WATTMETER, 500W  
 TYPE III, CLASS S, COLOR R, STYLE E, PER MIL-T-20800  
 152.4MM(6IN)X152.4MM(6IN)X203.2MM(8IN)D  
 11.34KG/25LBS  
 PROVIDED BY EQUIPMENT UNDER TEST, 50.60 OR 400HZ  
 7-55 TO 75 DEG C  
 30 TO 500MHZ  
 50 OHMS  
 0 TO 500W  
 LESS THAN 1.3 TO 1

0/-5 PCT



LETTER REQUIREMENT(PLP)  
19840LR07272

LR TECHNICAL DATA  
NOMENCLATURE  
ERROR RATE COUNTER

FAMILY CODE  
013

ID NO  
5250

ACCURACY (PCT)  
OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
EQUIPMENT NAME	00100	ERROR RATE COUNTER
CLASSIFICATION	00105	TYPE III, CLASS 5, COLOR R, STYL F, PER MIL-T-28000
DIMENSIONS IN MM/INS	00110	40MM(1.57IN)X20MM(0.787IN)X40MM(1.57IN)
WEIGHT IN KG/LBS	00120	11.3KG(25LBS)
PWR SUPPLY TEST/CONSUMPTION	00140	50HZ, 60HZ, 400HZ 5-PHASE 115/230VAC
TEMP OPER/STOR/CONSUMPTION	00210	-55C TO +75C STORAGE
QTY EQUIP COUNT	07200	PROVIDE FEEDOUT OF BIT & CLOCK ERDOPS
DATA SIGNAL FORMAT	15210	GEN & ANALYZE SYNC & ASYNC BINARY DATA SIG, HALF, FULL DUP
DATA SIGNAL BIT RATE	15230	INT 150 TO 9600PS/SEC TIMING SOURCE 0 TO 5MHZ BIT RATE
DISCUSSION MEASUREMENTS	20000	MEASURE PEAK & RIAS DISTORTION
ERROR TRANSMISSION	22000	TRANSMIT KNOWN ERRORS WITHIN THE TRANSMIT DATA SIGNAL
CAPACITOR LOSS	27100	INDICATE LOSS OF REC SIGNAL CONDITION
RECUION OUTPUT	50400	RECORD/PRINTER OUTPUT CAPABILITY
TEST PATTERNS	76000	MARK, SPACE ALT MARKS & SPACES, 63, 611 & 2047BIT TEST PATT

LETTER REQUIREMENT(PLP)  
19840LR12976

LR TECHNICAL DATA  
NOMENCLATURE  
IMPULSE NOISE TEST SET

FAMILY CODE  
023

ID NO  
5252

ACCURACY (PCT)  
OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
EQUIPMENT NAME	00100	IMPULSE NOISE TEST SET
CLASSIFICATION	00105	TYPE III, CLASS 5, COLOR R, STYL F, PER MIL-T-28000
DIMENSIONS IN MM/INS	00110	450MM(17.7IN)X260MM(10.2IN)X350MM(13.8IN)
WEIGHT IN KG/LBS	00120	29.5KG(65LBS)
PWR SUPPLY TEST/CONSUMPTION	00140	50HZ, 60HZ, 400HZ 5-PHASE 115/230VAC
TEMP OPER/STOR/CONSUMPTION	00210	-55C TO +75C STORAGE
QTY EQUIP COUNT	07200	MEASURES IDLE CH NOISE FROM 20 TO 9000K
DATA SIGNAL FORMAT	15210	INPUT 7, 13, 600, 900 OHMS BAL-GND, TERM & BRIDGING CAPACIT
DATA SIGNAL BIT RATE	15230	COUNT IMPULSES/NOISE FROM 0 TO 990
DISCUSSION MEASUREMENTS	20000	ADJ THRESHOLD FROM 30 TO 9000K
ERROR TRANSMISSION	22000	7 IMPULSES/SEC MIN
CAPACITOR LOSS	27100	CAPABLE OF PERFORMING NOISE TO GND MEASUREMENTS
RECUION OUTPUT	50400	AT LEAST 90K OHMS 8IN T/R, 100K OHMS BET T/R & GROUND
TEST PATTERNS	76000	



LR TECHNICAL DATA

FAMILY CODE 037 ID NO 5255

PHASE JITTER METER

PARAMETER

PHASE JITTER METER

TYPE III, CLASS 5, COLOR R, STYLE 1, PER MIL-T-28800

483MM1191N1W1X203MM1B1N1H1X305MM1I21N1D

8.2KG1181B1S1 MAX

50HZ+60HZ+400HZ 5-PHASE 115/230VAC

2500 HOURS

-55C TO +75C STORAGE

007/IN 2, AUDIO 600 AND 900MHZ BAL H/F 750MHZ UNBAL/GND

MEAS P/P PHASE JITTER FROM +7-3 TO +7-30DEGREES

AUDIO 1T 1KHZ +7-50HZ, HIGH FREQ AT LEAST ONE IN 10KHZ R

INPUT LEVEL RANGE -30DBM TO +100DB

INDICATION OF OUTPUT LEVELS OF IT SHALL BE PROVIDED

+/5 PCT

ACCURACY (PCT) OR AS STATED

LR TECHNICAL DATA

FAMILY CODE 055 ID NO 5256

SIGNAL GENERATOR, THERMAL

PARAMETER

SIGNAL GENERATOR, THERMAL

TYPE III, CLASS 5, COLOR R, STYLE 1, PER MIL-T-28800

340MM111N1W1X190MM17.51N1H1X290MM1I11N1D

6KG1131B1S1

50HZ+60HZ+400HZ 5-PHASE 115/230VAC

-55C TO +75C STORAGE

AT LEAST 80DB IN NO GREATER THAN 200R STEPS

900 OHMS

5HZ TO 5MHZ, IN 3 FREQ SPECTRUMS OF 01020KHZ, 500KHZ/5MHZ

3VOLTS MIN

+/10 PCT

+/10 PCT

ACCURACY (PCT) OR AS STATED

LR TECHNICAL DATA

LETTER REQUIREMENT(LEP)

10040LR57063

PARAMETER NAME

PARAMETER CODE

EQUIPMENT NAME

CLASSIFICATION

DIMENSIONS IN MM/INS

WEIGHT IN KG/LBS

PWR SUPPLY(ES)/CONSUMPTION

PEAKOUT METHOD(ES)

TEMP OPER/MON-OPERATING

ATTENUATION

RANGE

IMPEDANCE INPUT

RESOLUTION

RE VOLTAGE INPUT

STANDING WAVE RATIO METER (SWR)

FAMILY CODE

063

ID NO

5257

ACCURACY (PCT) OR AS STATED

PARAMETER

STANDING WAVE RATIO METER

TYPE III, CLASS 5, COLOR R, STYLE E, PER MIL-T-28800

450MHZ(17MHZ/20MHZ)10MHZ10MHZ550MHZ21MHZ

29.5KG(65LBS)

50HZ/60HZ/400HZ 5-PHASE 115/230VAC

METER DISPLAY IN BOTH VSWR AND DB

-55C TO +75C STORAGE

0 TO 70DB

VARIABLE BETWEEN 15HZ TO 130HZ

1000HZ

100 OHMS CRYSTAL DET,5000 UNRAISED,1000 BAISED,200 BULOM

AT LEAST 0.15UV RMS FOR FULL SCALE DEFLECTION

VSWR UP TO 10 TO 1

4/-7 PCI

LR TECHNICAL DATA

LETTER REQUIREMENT(LEP)

10040LR60633

PARAMETER NAME

PARAMETER CODE

EQUIPMENT NAME

FUNCTION

CLASSIFICATION

DIMENSIONS IN MM/INS

WEIGHT IN KG/LBS

PWR SUPPLY(ES)/CONSUMPTION

TEMP OPER/MON-OPERATING

ATT-PWR

CURRENT INPUT LEVEL

DISPOSITION TRANSMISSION

DISPOSITION MEASUREMENTS

PARTY ERRORS

TELETYPE ANALYZER

ACCEPT MARK/SPACE,FOUR MSG AT 5 LEVEL,RAUDOT/LEVEL ASCII

TYPE III, CLASS 5, COLOR R, STYLE L, PER MIL-T-28800

105MHZ(17MHZ/315MHZ)12MHZ10MHZ105MHZ(41MHZ)

2.3KG(5LBS)

OPERATE FROM SELF-CONTAINED RECHARGEABLE BATTERIES

-55C TO +77C STORAGE

45/47/2/110 E 150 BPS

NEUTRAL LOOPS AT 20 E 60MA,HI PULAR AT 30MA E LOW PULAR

MEASURES MARKING,SPACING,RIAS,END DIST,TOTAL PEAK DIST

MEASURE UP TO 50PCT DISTORTION IN THE INCOMING SIGNAL

INDICATE ODD OR EVEN PARITY ERRORS IN 8 LEVEL SIGNALS

TELETYPE ANALYZER

FAMILY CODE

066

ID NO

5258

ACCURACY (PCT) OR AS STATED

PARAMETER

TELETYPE ANALYZER

ACCEPT MARK/SPACE,FOUR MSG AT 5 LEVEL,RAUDOT/LEVEL ASCII

TYPE III, CLASS 5, COLOR R, STYLE L, PER MIL-T-28800

105MHZ(17MHZ/315MHZ)12MHZ10MHZ105MHZ(41MHZ)

2.3KG(5LBS)

OPERATE FROM SELF-CONTAINED RECHARGEABLE BATTERIES

-55C TO +77C STORAGE

45/47/2/110 E 150 BPS

NEUTRAL LOOPS AT 20 E 60MA,HI PULAR AT 30MA E LOW PULAR

MEASURES MARKING,SPACING,RIAS,END DIST,TOTAL PEAK DIST

MEASURE UP TO 50PCT DISTORTION IN THE INCOMING SIGNAL

INDICATE ODD OR EVEN PARITY ERRORS IN 8 LEVEL SIGNALS

4/-1-5 PCI



LITTER REQUIREMENT(S)		LR TECHNICAL DATA		FAMILY CODE	ID NO	ACCURACY (PCT) OR AS STATED
PARAMETER NAME	PARAMETER CODE	NOMENCLATURE	PARAMETER			
10449LR.0017		AC VOLT METER	AC VOLT METER	076	5247	
FORMING: INT NAME	00100		TYPE III, CLASS 5, COLOR R, STYLE E, PER MIL-T-28800			
CLASSIFICATION	00105		210MM(8 1/8") X 210MM(8 1/8") X 288MM(11 3/8")			
DIMENSIONS IN MM/INS	00110		4.5KG(10 LBS) MAX			
WEIGHT IN KG/LBS	00120		50HZ ± 60HZ ± 400HZ 5-PHASE 115/230VAC			
POWER SOURCES/CONSUMPTION	00140		DISPLAY, 400M AC VOLTS & DR VALU 5.0DB CAL IN REF 1MV 6000			
READING METHOD(S)	00160		-55C TO +75C STORAGE			
TEMP OPER/MON-OPERATING	00210		100HZ TO 1000HZ			
FCB RESPONSE	26900		PROVIDE RECORDER OUTPUT UP TO 1V AT FULL SCALE			±/-3 PCT
RECORDER INPUT	58400		ACV MEASUREMENTS, 1MV TO 300V -70 TO +50DBM(12) RANGES MAX			±/-3 PCT
VOLTAGE AC INPUT IMPEDANCE	84000		INPUT IMPEDANCE 10 MEGOHMS			
VOLTAGE AC INPUT IMPEDANCE	84110					
LITTER REQUIREMENT(S)		LR TECHNICAL DATA		FAMILY CODE	ID NO	ACCURACY (PCT) OR AS STATED
PARAMETER NAME	PARAMETER CODE	NOMENCLATURE	PARAMETER			
10449LR.0017		FREQUENCY SELECTIVE VOLT METER	FREQUENCY SELECTIVE VOLT METER	110	5251	
FORMING: INT NAME	00100		TYPE III, CLASS 5, COLOR R, STYLE F, PER MIL-T-28800			
CLASSIFICATION	00105		483MM(19 1/8") X 279MM(11 1/8") X 470MM(18 5/16")			
DIMENSIONS IN MM/INS	00110		21.72KG(47 LBS)			
WEIGHT IN KG/LBS	00120		50HZ ± 60HZ ± 400HZ 5-PHASE 115/230VAC			
POWER SOURCES/CONSUMPTION	00140		-55C TO +75C STORAGE			
TEMP OPER/MON-OPERATING	00210		2 SEL BANDWIDTHS 3.1KHZ ±/-10PCT ± 200HZ ±/-20PCT			
DIMENSIONS MEASUREMENTS	05300		DEMOD AM & 55H SUPPRESSED CYR TO AUDIO SIG & AMPLIFIER			
DEMODULATION	17000		6500 BELOW FUNDAMENTAL FREQ			
HARMONIC DISTORTION	19400		TUNABLE FROM 4KHZ TO 9.1MHZ, USABLE TO 1KHZ			±/-30 HZ
FREQ RANGE	26500		IMAGE REJECTION ± AT LEAST 70DB			
IMAGE REJ REJECTION	34000		75 ± 135 ± 600 & HIGH Z OF AT LEAST 1000 OHMS, UNBAL & BA			
IMPEDANCE INPUT	34400		MEASURES -110DBM TO +200DBM INPUT LEVELS			±/-0.2 DBM
INPUT LEVEL MEASUREMENT	36000					





LR TECHNICAL DATA

FAMILY CODE 016

ID NO 5263

ACCURACY (PCT) OR AS STATED

PARAMETER NAME

PARAMETER CODE

00100 EQUIPMENT NAME

00105 CLASSIFICATION

00110 DIMENSIONS IN MM/INS

00120 WEIGHT IN KG/LBS

00140 PM2 SOURCE(S)/CONSUMPTION

00210 TEMP OPER/MON-OPERATING

22400 ENV/LOP DELAY

22500 ENV/LOP DELAY MEAS CONFB

26900 FREQ OF SOUNSE

34500 IMPEDANCE, INPUT/OUTPUT

40800 LONGITUDINAL BALANCE

42500 MODULATION CHARACTERISTIC

61300 RETURN REF FREQ

65200 SIGNAL LEVEL, INPUT

65600 SIGNAL LEVEL, OUTPUT

ENVELOPE DELAY TEST SET

TYPE III-CLASS 5-COLOR R-STYLE E-PIR MIL-T-20800

482-6-1191NWX280M111N1HX457MM1101N1D

20-4KG/45LBS

50-60 & 400HZ 5-PHASE 115/230VAC

7-55 TO 75 DEG C

RELATIVE DELAY, 0 TO 40 MILLISECUNDS, +/-10MS-25HZ, 5MS-83

END TO END, END TO ENDW/RTN REF AND LOOP MODES

200HZ TO 600KHZ

135,150,600 & 900 OHMS BALANCED TO GND

40DB

MOD FREQS, 25, 83, 33 & 250HZ, W/50 PCT DBL SIDEBAND MUW

RTN REF FREQ, ADJ 200HZ TO 600KHZ

-450RM TO +200RM

-200RM TO +100RM, & NOT VARY MORE THAN -200/300HZ-20KHZ

+/-5 PCT

LR TECHNICAL DATA

FAMILY CODE 055

ID NO 5264

ACCURACY (PCT) OR AS STATED

PARAMETER NAME

PARAMETER CODE

00100 EQUIPMENT NAME

00105 CLASSIFICATION

00110 DIMENSIONS IN MM/INS

00120 WEIGHT IN KG/LBS

00140 PM2 SOURCE(S)/CONSUMPTION

00170 TEMP OPER/MON-OPERATING

00210 INPUT IMPEDANCE

35200 NOISE FIG IND, FREQ RANGE

44000 NOISE FIG IND, BANDWIDTH

44100 NOISE FIG IND, SENSITIVITY

45200 NOISE SOURCE

45210 NOISE SOURCE, EXCESS NOISE

45220 NOISE SOURCE, NOISE FREQ R

69600 STANDING, WAVE RATIO SWR

NOISE INDICATOR

GENERATES & MEASURES NOISE SOURCE LEVELS

TYPE III-CLASS 5-COLOR R-STYLE E-PIR MIL-T-20800

482-6-1191NWX315MM1121N1HX508MM1201N1D

20KG/45LBS

50-60 & 400HZ 5-PHASE 115/230VAC

INDICATOR BNC-FEM/SOURCE M, MALE TO 12GHZ, COSM FEM TO 18GHZ

7-55 TO 75 DEG C

50 OHMS

40MHZ TO 150MHZ

5MHZ OR GREATER

-70 TO -100DBM, W/NOISE SOURCE ON

MAXIMUM OF 3 NOISE SOURCE DEVICES PER OPER FREQ

15, 5DB

10MHZ TO 18GHZ

SWR MAX, 3.0

+/-10 PCT

LR TECHNICAL DATA

LETTER REQUIREMENT(LR)

19450LR21059

NOISE LOADING TEST SET B

FAMILY CODE 034

ID NO 5265

ACCURACY (PCT) OR AS STATED

PARAMETER NAME

00100 NOISE LOADING TEST SET B

00105 TYPE III-CLASS 5-COLOR R-SIYLE 1-PIR MIL-T-28800

00110 482.6MM(19IN)HX177.8MM(6.9IN)HX17.5MM(112.5IN)D

00120 11.79KG(26LBS)

00140 50.60 C 400HZ S-PHASE 115/230VAC

00210 7-55 TO 75 DEG C

02800 0 TO -32DBM

35100 MAX OUTPUT EACH CHAN. 0DBM

35200 600 OHMS

42500 12 VF CHAN'S EACH 300-3400HZ, W/GAUSSIAN DISTR NOISE SIG

51400 PEAK TO RMS WITHIN 8DB AT 1PCT/TIME 1000R/.1 PCT OF TIME

61200 GREATER THAN 20DB RETURN LOSS

68600 W/1 CHAN OFF, SPURIOUS NOISE LFSS/100DB (-75DBM FIA NGTD)

+/-10DB

+/-10DB

LR TECHNICAL DATA

LETTER REQUIREMENT(LR)

19450LR22011

NULL BALANCE EARTH TESTER

FAMILY CODE 035

ID NO 5274

ACCURACY (PCT) OR AS STATED

PARAMETER NAME

00100 NULL BALANCE EARTH TESTER

00105 TYPE III-CLASS 5-COLOR R-SIYLE 1-PIR MIL-T-28800

00110 160MM(6.3IN)HX265MM(10.4IN)HX160MM(6.3IN)D

00120 5.4KG(12LBS)

59600 10 MILLIOHMS TO 10KOHMS

76800 DC TEST VOLTAGE GEN'D W/HAND CRANK

+/-1 PCT

LR TECHNICAL DATA  
 NOMENCLATURE  
 SIGNAL GENERATOR, SHF

FAMILY  
 CODE  
 053

ID NO  
 5266

ACCURACY (PCT)  
 OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
EQUIPMENT NAME	00100	SIGNAL GENERATOR, SHF
CLASSIFICATION	00205	TYPE III, CLASS S, COLOR R, STYLE I, PER MIL-T-28800
DIMENSIONS IN MM/INS	00110	450MM(17.71IN)X365MM(14.37IN)X462.6MM(18.19IN)
WEIGHT IN KG/LBS	00120	33.5KG(74.1LBS)
PWR SOURCES/CONSUMPTION	00140	50.60 $\pm$ 400HZ S-PHASE 115/230VAC
TEMP. OPERATING	00210	-55 TO 75 DEG C
INTERNAL MOD CAPABILITIES	01300	FM, PULSE & SO-WAVE MOD
EXTERNAL MOD CAPABILITIES	01400	EXT. FM & PULSE MOD
FM DISTORTION	26010	MOD SEGMENT, NO GREATER THAN 2PCT ON ALL FREQ'S
FREQ. MOD-EX. MOD VOLTAGE	26040	300R BELOW UNMOD CARRIER
FREQ. MOD-SPURIOUS AM	26080	LESS THAN 5 PCT AT 40KHZ DEV
FREQ. MOD-INT. DEVIATION	26410	0 TO 50KHZ P/P
FREQ. RANGE	26500	15 TO 21GHZ W/LEV VARIATIONS NO MORE $\pm$ 1 DB IN 6 RANGES
IMPEDANCE OUTPUT	34300	50 OHMS
PULSE WIDTH	56010	1 TO 100SEC PULSE WIDTH
EX. PULS. REPETITION RATE	56020	40 TO 4000PPS
SO-WAVE MODULATION	68500	40 TO 4000HZ
OF INPUT POWER	85700	0 TO -100DBM

$\pm$ 1 PCT

LR TECHNICAL DATA  
 NOMENCLATURE  
 STROBOSCOPE

FAMILY  
 CODE  
 065

ID NO  
 5267

ACCURACY (PCT)  
 OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
EQUIPMENT NAME	00100	STROBOSCOPE
CLASSIFICATION	00105	TYPE III, CLASS S, COLOR R, STYLE I, PER MIL-T-28800
DIMENSIONS IN MM/INS	00110	305MM(12.01IN)X203MM(8.0IN)X141MM(5.55IN)
WEIGHT IN KG/LBS	00170	9KG(20LBS)
PWR SOURCES/CONSUMPTION	00140	50.60 $\pm$ 400HZ S-PHASE 115/230VAC
TEMP. OPERATING	00210	-55 TO 75 DEG C
FLASH CHARACTERISTICS	24400	110 TO 25,000 FLASHES PER MINUTE
LIGHT INTENSITY	39600	$\pm$ 510 DEGREES CANDELA, MEAS 1 METER FROM LAMP
SYNC. SYNCHRONIZATION, INPUT	74000	EXT SOURCE SYNC CAPABILITY

$\pm$ 1 PCT



## APPENDIX E

### LR AND SPECIFICATION ANALYSIS

In this appendix the technical characteristics of each LR and its companion OTS ETE specification are displayed by specific parameter. This arrangement facilitates determination of the compatibility between the LR and the specification. The data are in OTS ETE specification number sequence.

(Published Separately as Volume II)

## APPENDIX F

### LIFE-CYCLE-COST MODEL

#### 1. DISCUSSION

In the following documentation, each life-cycle-cost element variable is indexed with an "I," e.g., HDWC(I). With this addition the variable represents an OTS ETE preferred item when "I" equals 1, and a fielded item when "I" is greater than 1.

The cost elements vary over the CERCOM-specified 20-year cycle from 1982 through 2001. The computer program will compute and list each life-cycle-cost element first in constant 1980 dollars and then in inflated dollars.

## 2. GENERAL LIFE-CYCLE-COST EXPRESSION

The general life-cycle-cost expression is as follows:

$$\begin{array}{lcl} \text{LCC}_{\text{TMDE}} = & \text{Hardware Cost} & \\ & + \text{Engineering Cost} & \left. \begin{array}{l} \text{Investment} \\ \text{Cost} \\ \text{Elements**} \end{array} \right\} \\ & + \text{Initial Training Cost} & \\ & + \text{Transportation Cost} & \\ & + \text{Documentation Cost} & \\ & + \text{Initial Provisioning Cost*} & \\ & + \text{Inventory Management Cost} & \left. \begin{array}{l} \text{Recurring} \\ \text{Cost} \\ \text{Elements**} \end{array} \right\} \\ & + \text{Replacement Training Cost} & \\ & + \text{Maintenance Labor Cost} & \\ & + \text{Consumables Cost} & \\ & + \text{Holding Cost} & \end{array}$$

The algorithms for the individual cost elements are presented in the following subsections.

---

\*Spares.

\*\*Details are provided in each algorithm.



## 2.1 Hardware Cost Algorithm

$$\text{HDWC}(I) = \text{NEQB}(I) \times \text{UPRC}(I)$$

where

HDWC(I) = Hardware Cost of Ith TMDE Item

NEQB(I) = Quantity Purchased of Ith TMDE Item

UPRC(I) = Unit Price of Ith TMDE Item

TMDE equipment is as follows:

- Alternative A (Preferred Item) for  $I = 1$
- Alternative B (Fielded Item) for  $I > 1$

## 2.2 Engineering Cost Algorithm

$$\text{ENGCS}(I) = [\text{HDWC}(I) \times (\text{ECO} + \text{PEPA}(I))] + \text{GEC}(I)$$

where

ENGCS(I) = Engineering Cost of Ith TMDE Item

HDWC(I) = Hardware Cost of Ith TMDE Item

ECO = Engineering Change Orders. Source is CERCOM Logistics Engineering Directorate (LED).

0.02

PEPA(I) = Production Engineering/Product Assurance. Source is CERCOM LED.

Zero for Alternative A

0.08 for Alternative B

GEC(I) = Government Engineering Cost. Source is CERCOM LED.

24,700 for Alternative A

Zero for Alternative B

TMDE equipment is as follows:

- Alternative A (Preferred Item) for  $I = 1$
- Alternative B (Fielded Item) for  $I > 1$

### 2.3 Initial Training Cost Algorithm

INIT(I) = INITA for Alternate A  
          = 0 for Alternate B

where

INIT(I) = Initial Training Cost for Ith TMDE Item  
INITA =  $\begin{cases} 5,000 & \text{for } C = 1 \\ 22,000 & \text{for } C = 2 \\ 39,000 & \text{for } C = 3 \end{cases}$   
C = Complexity Factor (1, 2, or 3)

This algorithm is based on the following information supplied by DRSEL-PL-SA:

- Factory Training Cost = \$12,000 per week
- Training Film Cost = \$ 1,000 per minute

TMDE Complexity (C)	Factory Training Time	Training Film Length	Cost
1 - Below Average	--	5 minutes	\$ 5,000
2 - Average	1 week	10 minutes	\$22,000
3 - Above Average	2 weeks	15 minutes	\$39,000

TMDE equipment is as follows:

- Alternative A (Preferred Item) for I = 1
- Alternative B (Fielded Item) for I > 1

## 2.4 Transportation Cost Algorithms

$$\text{FDTRC}(I) = 0.015^* \times \text{HDWC}(I)$$

$$\text{SDTRC}(I) = 0.05^{**} \times \text{HDWC}(I)$$

where

FDTRC(I) = First Destination Transportation Cost for Ith  
TMDE Item

SDTRC(I) = Second Destination Transportation Cost for Ith  
TMDE Item

HDWC(I) = Hardware Cost of Ith TMDE Item

TMDE equipment is as follows:

- Alternative A (Preferred Item) for  $I = 1$
- Alternative B (Fielded Item) for  $I > 1$

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\*Source is U.S. Army Communications Research and Development Command  
(CORADCOM) "Cost Estimating Handbook," p. V-10.

\*\*Source is U.S. Army Electronics Command Pamphlet (ECOMP) 11-4, Volume 7,  
"Cost Estimating Handbook," p. VI-13.

## 2.5 Documentation Cost Algorithm

$$\begin{aligned} \text{DMTC(I)} &= \text{NPC(C)} \times 250^* \times \text{REBY(I)} + [\text{PLC(C)} + \text{RLC(C)}] \times 35^{**} \\ &\quad \text{for Alternative A} \\ &= \text{NPC(C)} \times 250^* \times \text{REBY(I)} \text{ for Alternate B} \end{aligned}$$

where

- DMTC(I) = Documentation Cost for Ith TMDE Item
- NPC(C) = Narrative Section Page Count as a Function of TMDE Complexity, C = 1, 2, or 3
- PLC(C) = Provisioning Section Line Count as a Function of TMDE Complexity, C = 1, 2, or 3
- RLC(C) = Repair Parts and Special Tool List (RPSTL) Section Line Count as a Function of TMDE Complexity, C = 1, 2, or 3
- REBY(I) = Rebuy Factor for Narrative Section: 0.2 if a Rebuy or 1 Otherwise. (Source is DRSEL-PL-SA.)

The documentation information listed below was provided by ManTech of New Jersey Corporation under Contract DAAB07-77-D-6136:

C	Typical TMDE	Narrative Pages (NPC)	Provisioning Pages (PLC)	RPSTL Lines (RLC)
1	Multimeter	80	500	125
2	Signal Generator	150	1,000	250
3	Spectrum Analyzer	250	2,000	500

TMDE equipment is as follows:

- Alternative A (Preferred Item) for I = 1
- Alternative B (Fielded Item) for I > 1

\*Cost per Narrative Page, supplied by Maintenance Engineering Directorate, DRSEL-ME-PCF.

\*\*Cost per RPSTL (Repair Parts and Special Tool List) Line, supplied by Maintenance Engineering Directorate, DRSEL-ME-PCF.

## 2.6 Initial Provisioning Cost Algorithm

$$\begin{aligned}\text{IPRO}(I) &= \text{PIPCT}(I) \times \text{HDWC}(I) \text{ for Alternative A} \\ &= 0 \text{ for Alternative B}\end{aligned}$$

where

$$\begin{aligned}\text{IPRO}(I) &= \text{Initial Provisioning Cost for } I\text{th TMDE Item} \\ \text{PIPCT}(I) &= \text{Initial Provisioning Percentage for Alternative A (based} \\ &\quad \text{on algorithm provided by ManTech of New Jersey Corporation} \\ &\quad \text{under Contract DAAB07-77-D-6136)} \\ &= \frac{11 + \frac{500}{\text{MTBF}(1)}}{100} \quad \text{MTBF}(1) < 500 \text{ Hours} \\ &= \frac{13 - \frac{\text{MTBF}(1)}{500}}{100} \quad 500 \text{ Hours} \leq \text{MTBF}(1) \leq 2500 \text{ Hours} \\ &= 0.08 \quad \text{MTBF}(1) \geq 2500 \text{ Hours} \\ \text{HDWC}(I) &= \text{Hardware Cost of } I\text{th TMDE Item} \\ \text{MTBF}(1) &= \text{Mean Time Between Failures (in Hours) for Preferred Item}\end{aligned}$$

The condition of zero initial provisioning for Alternative B was supplied by DRSEL-PL-SA.

TMDE equipment is as follows:

- Alternative A (Preferred Item) for  $I = 1$
- Alternative B (Fielded Item) for  $I > 1$

## 2.7 Inventory Management Cost Algorithm

$$\begin{aligned}\text{IMC(I)} &= 668^* \times \text{RLC(C)} \text{ for a First Buy} \\ &= 291^{**} \times \text{RLC(C)} \text{ for a Catalogued Item}\end{aligned}$$

where

$$\begin{aligned}\text{IMC(I)} &= \text{Inventory Management Cost of Ith TMDE Item} \\ \text{RLC(C)} &= \text{RPSTL (Repair Parts and Special Tool List) Section Line} \\ &\quad \text{Count as a Function of Complexity, C = 1, 2, or 3}\end{aligned}$$

Costs attributable to inventory management include item identification, description, inclusion in supply catalog and maintenance catalog, establishment of inventory level and replacement rate, provisioning, requisitioning and rebuild instructions, supply studies, provisioning studies, requisitioning costs, and costs of holding inventory.

TMDE equipment is as follows:

- Alternative A (Preferred Item) for  $I = 1$
- Alternative B (Fielded Item) for  $I > 1$

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\*Cost of entering an item into the inventory system. Source is CORADCOM "Cost Estimating Handbook," p. VI-12. Cost is inflated to FY 1980 dollars with factor provided by DARCOM Comptroller.

\*\*Cost of maintaining an item in the inventory system. Source is CORADCOM "Cost Estimating Handbook," p. VI-12. Cost is inflated to FY 1980 dollars with factor provided by DARCOM Comptroller.

## 2.8 Replacement Training Cost Algorithm

$$\text{TRNC} = 0.01* \times (\text{TRN35B} + \text{TRN35H})$$

where

TRNC = Training Cost

TRN35B = Total Cost of Training Military Occupational Specialty (MOS) 35B (Repairmen Classification)

= Number of 35Bs Trained Annually Multiplied by Course Cost per Individual

TRN35H = Total Cost of Training MOS 35H (Calibrator Classification)

= Number of 35Hs Trained Annually Multiplied by Course Cost per Individual

MOS	Number Trained Annually	Course Cost per Individual**
35B10	95	\$ 8,191
35B20	61	\$ 5,818
35H30	38	\$10,359

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\* Source: ManTech of New Jersey Corporation under Contract DAAB07-77-D-6136.

\*\*Cost-of-training data provided by Comptroller of Army, DACA-CAF.



## 2.9 Maintenance Labor Cost Algorithm

$$\text{LBRCS}(I) = \text{CALCS}(I) + \text{RPRCS}(I)$$

$$\text{RPRCS}(I) = \text{NOEQ}(I) \times \frac{\text{OPHY}(I)}{\text{MTBF}(I)} \times \text{MTTR}(I) \times 9.52^*$$

$$\text{CALCS}(I) = \text{NOEQ}(I) \times \frac{365^{**}}{\text{CAL}(I)} \times \text{MTTC}(I) \times 9.52^*$$

where

$\text{LBRCS}(I)$  = Maintenance Labor Cost of Ith TMDE Item

$\text{CALCS}(I)$  = Cost of Calibration of Ith TMDE Item

$\text{RPRCS}(I)$  = Cost of Repair of Ith TMDE Item

$\text{NOEQ}(I)$  = Quantity of Ith TMDE Item Purchased for the Next Seven Years

$\text{OPHY}(I)$  = Yearly Operating Hours of Ith TMDE Item  
= 260 × Daily Use

$\text{MTBF}(I)$  = Mean Time Between Failures (hours) for Ith TMDE Item

$\text{MTTR}(I)$  = Mean Time To Repair (hours) for Ith TMDE Item

$\text{MTTC}(I)$  = Mean Time To Calibrate (hours) for Ith TMDE Item

$\text{CAL}(I)$  = Calibration Interval (days) for Ith TMDE Item

TMDE equipment is as follows:

- Alternative A (Preferred Item) for  $I = 1$
- Alternative B (Fielded Item) for  $I > 1$

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\* Cost per active maintenance man-hour for Communications-Electronics (C-E) equipment. Source is CORADCOM "Cost Estimating Handbook," p. VI-3 (value then inflated by 7 percent cost-of-living allowance).

\*\*Scaling factor: days in one year.

## 2.10 Cost of Consumables Algorithm

$$\begin{aligned}\text{CONCST}(I) &= 0.25^* \times \text{IPRO}(1) \text{ for Alternative A} \\ &= 0.05^{**} \times \text{CUMHDW} \text{ for Alternative B}\end{aligned}$$

where

$\text{CONCST}(I)$  = Cost of Consumables for Ith TMDE Item  
 $\text{IPRO}(1)$  = Initial Provisioning for Alternative A  
 $\text{CUMHDW}$  = Seven-Year Cumulative Hardware Totals for Fielded Items  
Up To and Including Current Year

TMDE equipment is as follows:

- Alternative A (Preferred Item) for  $I = 1$
- Alternative B (Fielded Item) for  $I > 1$

---

\* Supplied by DRSEL-PL-SA.

\*\*Cost of Repairs Parts is typically five percent of the Total Hardware Cost. Source is CORADCOM "Cost Estimating Handbook," p. VI-5.

## 2.11 Holding Cost Algorithm

$$\begin{aligned}\text{HLDCST}(I) &= 0.03^* \times \text{IPRO}(I) \text{ for Alternative A} \\ &= 0.0036^{**} \times \text{CUMHDW} \text{ for Alternative B}\end{aligned}$$

where

$\text{HLDCST}(I)$  = Holding Cost for Ith TMDE Item  
 $\text{IPRO}(I)$  = Provisioning Cost for Ith TMDE  
 $\text{CUMHDW}$  = Seven-Year Cumulative Hardware Totals for Fielded Items Up To and Including Current Year

Holding costs apply to TMDE in the Supply System. Since no TMDE will be bought for float, holding cost will apply to consumables held in the supply system.

TMDE equipment is as follows:

- Alternative A (Preferred Item) for  $I = 1$
- Alternative B (Fielded Item) for  $I > 1$

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\*Repair Parts Holding Cost factor is based on a percentage of the cost of the item being stored. The cost of the item being stored is assumed to be equal to the Initial Provisioning Cost for the Ith TMDE. The percentages used are from CORADCOM "Cost Estimating Handbook," p. VI-6, and are as follows:

<u>Cost Factor</u>	<u>Percentage</u>
Storage Costs	1
Other Losses	<u>2</u>
Total	3

\*\*Supplied by DRSEL-PL-SA.

**DATA  
FILM**